# MASTER OF SOCIAL WORK IN DISASTER MANAGEMENT

# **SYLLABUS**

## TABLE OF CONTENTS

1.	INTRODUCTION	4
2.	HIGHLIGHTS OF THE PROGRAMME	4
3.	PROGRAMME OUTCOMES (POs)	6
4.	PROGRAMME SPECIFIC OUTCOMES (PSOs)	7
5.	STUDENT AND TEACHER- ELIGIBILITY AND QUALIFICATIONS	8
6.	SCHEME OF COURSE	9
7.	COURSE OVERVIEW	11
8.	DETAILED SYLLABUS WITH COURSE OBJECTIVES	14
SE	MESTER I	14
	1.1. INTRODUCTION TO SOCIAL WORK	14
	1.2. INTRODUCTION TO DISASTERS AND DISASTER MANAGEMENT	16
	1.3. WORKING WITH COMMUNITIES- COMMUNITY BASED DISASTER RISK REDUCTION (CBDRR)	18
	1.4. WORKING WITH VULNERABLE GROUPS	20
	1.5. WORKING WITH INDIVIDUALS- PSYCHOLOGICAL FIRST-AID (PFA) AND REHABILITATION	21
SE	MESTER II	23
	2.1. DISASTER MANAGEMENT MODELS	23
	2.2. DISASTER VULNERABILITY AND SUSATAINABLE DEVELOPMENT	25
	2.3. SOCIAL WORK RESEARCH AND STATISTICS	27
	2.4. ADMINISTRATION OF HUMAN SERVICE ORGANIZATIONS (HSOs)- DISASTER RESILIENCE BUILD	ING
		29
	2.5. SELF-CARE SKILLS FOR THE DISASTER SOCIAL WORKERS	
SE	MESTER III	
	3.1. PROJECT MANAGEMENT FOR DISATER MANAGEMENT	33
	SPECIALIZATION A: DISASTER HEALTH	35
	3.2.A. MEDICAL INFORMATION FOR DISASTER HEALTH PRACTICE	35
	3.3.A. MENTAL HEALTH AND DISASTERS	37
	3.4.A. DISASTER HEALTH MANAGEMENT	38
	SPECIALIZATION B: TECNOLOGIES FOR DISASTER MANAGEMENT	42
	3.2.B. ICT FOR DISASTER MANAGEMENT	42
	3.3. B. SCIENCE AND TECHNOLOGY FOR RISK ASSESSMENT, PREVENTION AND PREPAREDNESS	44
	3.4.B. GEOGRAPHICAL INFORMATION SYSTEM IN DISASTER MANAGEMENT	45
СГ	MECTED IV	10

	4.1. COUNSELLING FOR TRAUMA VICTIMS	. 48
	SPECIALIZATION A: DISASTER HEALTH	. 50
	${\tt 4.2.A.\ POST-TRAUMATIC\ STRESS\ DISORDER\ (PTSD)\ AND\ COGNITIVE\ BEHAVIOURAL\ THERAPY\ (CBT).}$	. 50
	4.3.A. POST-TRAUMATIC STRESS DISORDER (PTSD) AND THERAPY WITH CHILDREN	. 51
	4.4.A. FIRST-AID FOR DISASTERS	. 54
	SPECIALIZATION B: TECHNOLOGIES FOR DISASTER MANAGEMENT	. 55
	4.2. B. TECHNOLOGY AND STANDARDS IN HUMANITARIAN AID, RELIEF AND REHABILITATION	. 55
	4.3.B. GEOGRAPHIC INFORMATION SYSTEM (GIS) AND GLOBAL POSITIONING SYSTEM (GPS)	
	TECHNOLOGIES IN DISASTERS	. 57
	4.4.B. GEO-INFORMATICS AND APPLICATIONS IN DISASTERS	. 59
9.	FIELD WORK CURRICULUM	62
Q	UESTION PAPER MODEL	67

## MASTER OF SOCIAL WORK IN DISASTER MANAGEMENT

### (M.S.W. DISASTER MANAGEMENT)

#### 1. INTRODUCTION

Globally there has been a rise in the incidence of disasters. The lives of large number of people are being impacted by the tragic effects of disasters and governments are incurring irretrievable losses annually. The need for abilities across topics, disciplines and methods is especially important for preventing and mitigating disasters. Most disaster mitigation and vulnerability processes are political, social and economic requiring interventions from social sciences. A 'Master of Social Work in Disaster Management' degree superimposes multi-disciplinary knowledge of the Social Sciences and the expertise of the social worker onto the disaster management field. The programme will serve to train professionals who are able to critically and holistically evaluate the dynamics, processes and systems that come into play during disasters and skilfully plan, intervene and evaluate disaster management activities. These professionals will, thus, contribute to making India aware of its vulnerabilities and engender a culture of prevention, preparedness and safety.

Trained professionals in Disaster Management are employed in Government and private sectors, nationally and internationally. Some avenues for employment are emergency planning and services, crisis communication and intervention, relief groups, infectious disease management, risk analysis, law enforcement department, local authorities, reinsurance, business continuity, security management, emergency logistics, civil defence, petroleum, chemical and mining industry and humanitarian management.

#### 2. HIGHLIGHTS OF THE PROGRAMME

#### Goal of the Programme

Moulding informed, balanced and skillful professionals who contribute actively to the field of Disaster management practice.

#### Thrust areas of the curriculum

- Practice with Vulnerable groups
- Kerala Model of Disaster Management
- ❖ Psychological First Aid and Emotional Hygiene
- ❖ Local Self Government and Decentralised planning for DM
- Community Based Disaster Risk Reduction

#### Pedagogical strategies

- Theory-practice interface
- Outcome based education
- Competency-based training
- **❖** Analytical thinking
- ❖ Intensive Field Work
- ❖ Safety Life Skills Training
- Embedded mentoring
- Self-Care and Professionalism
- Disaster Drills

#### Knowledge base of the professionals:

- Disaster Management
- Theories and Models of Disasters
- Disaster Administration
- Science and Technology for Disasters
- ❖ Working with multiple-stakeholders

#### Attributes of the professionals:

- Self-awareness
- Motivation and Crisis Leadership
- ❖ Ten Life-Skills
- Multiple Intelligence
- Ingenuity
- Hardiness in the face of disasters
- Presence of mind during crisis
- Empathy and genuineness

#### Skills of the Professionals:

- ❖ Safety Skills: Swimming, driving, using safety apparatus, first-aid.
- Disaster Analysis: Thinking about the causes of disasters and the vulnerability, analysing models of disasters, planning for different groups.
- ❖ Disaster Communication during and after disasters
- Setting-based Disaster Intervention Skills, i.e., skills for practice in Individual, Group, Community and Organization settings.
- Phase-based Disaster Intervention skills, i.e. skills required for Disaster Prevention, Mitigation, Rescue, Relief, Recovery, Rehabilitation and Reconstruction.
- Trauma Counselling
- Technology for disasters

#### 3. PROGRAMME OUTCOMES (POs)

The University of Kerala has identified a set of POs that are to be achieved by its constituent departments and colleges.

- **PO 1 Critical Thinking:** Acquire, condense and critically evaluate scholarly arguments, the assumptions behind them, and their theoretical and empirical components.
- **PO 2 Problem Solving:** Acquire the ability to define a problem, generate alternate solution, evaluate and select an alternative and implement follow up on the solution.
- **PO3 Effective Communication:** Listen, read, comprehend, speak and write clearly and effectively in person and through electronic media in English/regional language/language of the discipline and exhibit sound domain knowledge including theories, concepts and terminologies.
- **PO 4 Self-directed and Life-long Learning:** Acquire the ability to engage in independent and lifelong learning in the broadest context of socio-technological changes. Integrate academic knowledge with practical skills and transfer such knowledge/skills to other domains of one's life and work.
- **PO 5 Responsible Citizenship:** Demonstrate empathetic social concern, and the ability to act with an informed awareness of issues. Learners understand and respect diversity and difference, devoid of any prejudice by gender, age, caste, religion or nationality. Learners promote sustainable development practices.
- **PO 6 Scientific Temper:** Inculcate scientific temper among students which would lead to creation of new knowledge.
- **PO 7 Ethics:** Understand different value systems including one's own, as also the moral dimensions of actions, and accept responsibility for it.

#### 4. PROGRAMME SPECIFIC OUTCOMES (PSOs)

The programme endeavours to produce thinking, feeling and acting professionals. It hopes to enhance the knowledge, analytical ability, emotional acumen and practice skills of the student. Hence, the programme professes to equip students to achieve the following outcomes:

- **PSO 1- Social Work Practice for Disaster Management:** Apply Social Work values, principles and methods in the field of disaster management.
- **PSO 2- Disaster Management Basics:** Acquire a comprehensive understanding of disasters and the field of disaster management.
- **PSO 3- Analysis for Disaster Management:** Understand, analyse and evaluate the relationship of disasters with development, vulnerability, environment, socio-political and economic factors.
- **PSO 4- Disaster Management Specific Skills:** Transform into leaders who are socially committed, emotionally balanced, competent, creative and contributing disaster management professionals.

There are 18 courses offered under the programme. Based on the programme specific outcomes PSOs), the courses have been divided into 4 thematic areas, namely Social Work Practice, Disaster Management Basics, Analysis for Disaster Management and Social Work and Disaster Management Skills. Please note that, thematic division of courses does not imply that course outcomes (COs) are mapped under the corresponding PSOs.

**Table 1: Thematic distribution of generic courses** 

C : LW LD 4:	1 1 1 2 4 6 1 1 1 1 1					
Social Work Practice	1. Introduction to Social Work					
(6 papers):	2. Working with Communities- Community based Disaster Risk					
	Reduction (CBDRR)					
	Working with Vulnerable Groups					
	4. Working with Individuals- Psychological First-Aid (PFA) and					
	Rehabilitation					
	5. Administration of Human Service Organizations (HSOs)- Disaster					
	Resilience Building					
	6. Social Work Research and Statistics					
Disaster Management	7. Introduction to Disasters and Disaster Management					
Basics (1 paper)						
Analysis for Disaster	8. Disaster Vulnerability and Sustainable Development					
Management (2 Papers)	9. Disaster Management Models					
iviamagement (2 1 apers)	)					
Social Work and	10. Self-Care Skills for Disaster Social Workers					
Disaster Management	11. Project Management for Disaster Management					
Skills (9 papers)	12. Counselling for Trauma Victims					

	Disaster Health (6 papers)	Technologies for Disaster				
		Management (6 papers)				
13.	A1. Medical Information for	B1. ICT for Disaster Management				
	Disaster Health Practice					
14.	A2. Mental Health and	B2. Science and Technology for				
	Disasters	and Risk Assessment, Prevention and				
	Disasters	Preparedness				
15.	A3. Post-Traumatic Stress	B3. Geographical Information				
	Disorder (PTSD) and	System in Disaster Management				
	Cognitive Behavioural					
	Therapy (CBT)					
16.	A4. Disaster Health	B4. Technology and Standards in				
	Management Treatm	Humanitarian Aid, Relief and				
	Wanagement	Rehabilitation				
17.	A5. Post-Traumatic Stress	B5. GIS and GPS Technologies in				
	Disorder (PTSD) and Therapy	Disasters				
	with Children					
18.	A6. First-Aid for Disasters	B6. Geo-Informatics and				
	Au. First-Aid for Disasters	Applications in Disasters				

# 5. STUDENT AND TEACHER- ELIGIBILITY AND QUALIFICATIONS

<b>Student Strength</b>	Qualifications:				
25 (Twenty-Five)	<ul> <li>Under-graduate</li> </ul>				
	<ul> <li>Any Stream</li> </ul>				
	■ Minimum 40% Marks				
<b>Faculty Strength</b>	Qualifications:				
5 (Five)	Master of Social Work (MSW)/MSc in Disaster Management/ MA Disaster Management/ M Sc Data Analytics and Geospatial Analytics/M.Sc. in Geoinformatics  Experience in Academic and Disaster Management Field is preferable.				

#### 6. SCHEME OF COURSE

Scheme has been set for a 16-week semester; 1 Credit = 16 hours

Field Work is a compulsory component of the program.

#### **Instruction and Field Work Hours**

Total Hours (Instruction and Field Work)	<b>2608 hours</b>			
Total Credits	163 Credits			
Total Instructional Hours	1328 hours			
Semesters 1-2: 5 papers/semester (4 hours/week/paper)	83 Credits			
Semesters 3-4: 4 papers/semester (5 hours/week/paper)				
Semester 4 includes Dissertation (48 hours)				
Transacted by way of classroom lectures, guided reading sessions, assignment				
writings, seminars, group discussions, tutorials, role-play, case studies, field				
trips, field surveys, field action and computer classes.				
Total Field Work Hours	1280 hours			
Field Work happens in 4 semesters; All semesters have concurrent fields work	80 Credits			
and Semester 2 and 4 has Block Placements.				
Con				
Comprehensive Viva in Semester 4				

#### DETAILED SCHEME OF THE PROGRAMME

Se	Sub.		Hrs/	Instr.	FW/	ESA	Interna	Extern	Total	
m	Cod	Title of Paper	Sem	Hrs/ Week	Week	hrs	l Marks	al Marks	Marks	Credits
I	1.1.	Introduction to Social Work	64	4		3	25	75	100	4
	1.2.	Introduction to Disasters and Disaster Management	64	4		3	25	75	100	4
	1.3.	Working with Communities- Community based Disaster Risk Reduction (CBDRR)	64	4		3	25	75	100	4
	1.4.	Working with Vulnerable Groups	64	4		3	25	75	100	4
	1.5.	Working with Individuals- Psychological first-aid (PFA) and Rehabilitation	64	4		3	25	75	100	4
	FW 1	Field Practicum: Concurrent FW (@7 hours X 2 Days/week)	224		14		100		100	14
		TOTAL	544	20	14	15	225	375	600	34
II	2.1.	Disaster Management Models	64	4		3	25	75	100	4
	2.2.	Disaster Vulnerability and Sustainable Development	64	4		3	25	75	100	4
	2.3.	Social Work Research and Statistics	64	4		3	25	75	100	4
	2.4.	Administration of Human Service Organizations (HSOs)- Disaster Resilience Building	64	4		3	25	75	100	4
	2.5.	Self-Care Skills for Disaster Social Workers	64	4		3	25	75	100	4
	FW 2	Field Practicum: Concurrent FW (@7 hours X 2 Days/week) & Block Field Work (@8 hours X 24 days)	416		14		100		100	26
		TOTAL	736	20	14	15	225	375	600	46
III	3.1	Project Management for Disasters	80	5		3	25	75	100	5
	3.2.	A1. Medical Information for Disaster Health Practice; B1. ICT for Disaster Management	80	5		3	25	75	100	5
	3.3.	A2. Mental Health and Disasters; B2. Science and Technology for Risk Assessment, Prevention and Preparedness	80	5		3	25	75	100	5
	3.4.	A3. Disaster Health Management; B3. Geographical Information System in Disaster Management	80	5		3	25	75	100	5
	FW 3	Field Practicum: Concurrent FW (@7 hours X 2 Days/week)	224		14		100		100	14
	3	TOTAL	544	20	14	12	200	300	500	34
IV	4.1	Counselling for Trauma Victims	80	5		3	25	75	100	5
	4.2.	A4.; Post-Traumatic Stress Disorder (PTSD) and Cognitive Behavioural Therapy (CBT); B4. Technology and Standards in Humanitarian Aid, Relief and Rehabilitation	80	5		3	25	75	100	5
	4.3	A5. Post-Traumatic Stress Disorder (PTSD) and Therapy with Children; B5. GIS and GPS Technologies in Disasters	80	5		3	25	75	100	5
	4.4.	A6. First-aid for Disasters; B6. Geo-Informatics and Applications in Disasters	80	5		3	25	75	100	5
	FW 4	Field Practicum: Concurrent Field Work (@7 hours X 2 Days/week) & Block Field Work (@8 hours X 24 days)	416		14		100		100	26
		Dissertation	48					100	100	3
		Comprehensive Viva Voce						100	100	
		TOTAL	784	20	14	12	200	500	700	49

GRAND TOTAL | 2608 | 80 | 56 | 54 | 850 | 1550 | 2400 | 163

#### 7. COURSE OVERVIEW

#### Course Structure

The Post-graduate course leading to the award of the "Master of Social Work (M.S.W.) in Disaster Management" offered by the University of Kerala, is a program spread over four semesters. The academic work is a package of the following components:

- Nineteen Common Papers including Dissertation
- Concurrent Field Work: The components of concurrent field work include (1) Bridge Course (2) Exposure Visits, (3) Concurrent Fieldwork Internships, (3) Specialized agency exposure, (4) Addon Certificate Courses (specialized skill-oriented short-term courses of prestigious institutions), (5) Walk with Experts, (6) Rural live-in camp, (7) Street Theatre Workshop, (8) PRA camp, (9) Other Programmes/Projects- contributing to/participating in programmes/conferences/seminars/workshops, (10) a viva voce at the end of each semester to evaluate fieldwork and comprehension
- Two Block Field Work Internships
- Comprehensive Viva Voce

#### **Teaching Hours and Transaction**

Considering that professional development requires personal reflection, the program will have a total of **2608** hours of instruction and field work. The instructional hours will be transacted by way of classroom lectures, guided reading sessions, assignment writings, seminars, group discussions, tutorials, role-play, case studies, field trips, field surveys, field action and computer classes. The instructional content is transacted by way of 4 papers each in the first and second semesters and 5 papers each in the third and fourth semesters. Semester IV also requires the learner to submit a Dissertation/Project and attend a comprehensive viva-voce. All semesters will feature concurrent fieldwork internships transacted concurrently, 14 hours per instructional week on Thursdays & Saturdays or Fridays and Saturdays. Semesters 2 and 4 will have Block field work internships. An internship requires placement of students in an organization requiring a mandate of 24 days of internship, covering 192 hours.

#### **Evaluation**

Evaluation of each paper shall be done in parts, viz., Continuous Assessment (CA) and End Semester Assessment (ESA). The distribution of marks shall be 25 marks for CA and 75 for ESA (University Examinations at the end of each semester). There shall be no continuous assessment for

Dissertation/ Project. The allocation of marks for Continuous Assessment (CA) shall be in the following proportion.

CA Components	Marks
a. Assignment	10
b. Seminar	5
c. Tests	10
TOTAL	25

Each student shall be required to do an assignment for each paper; a maximum 10 marks shall be awarded for the assignment. There shall be two class tests during a semester; marks of tests shall be awarded on the basis of the marks secured for the best among the 2 tests; a maximum 10 marks shall be awarded for the test. Students shall be required to present a seminar on a selected topic in each paper. The evaluation of the seminar will be done on the basis of presentation, content of the seminar paper and participation in discussion; a maximum of 5 marks shall be awarded.

The Dissertation/Project work shall not be less than 50 typed (font in 12 point, in Times New Roman-spaced at 1.5point) pages in standard thesis format showing evidence of the ability of the candidate to design a study, collect relevant materials, analyse it using appropriate tools of research and to present an analytical assessment of the problem. Two copies of the dissertation duly certified by the supervising Teacher and countersigned by the Principal, where the course is held, shall be submitted to the University before the commencement of the End Semester Examination (ESA) at the end of the Fourth Semester. The Dissertation/Project shall be awarded a maximum of 100 marks, of which 20% shall be allotted to viva-voce examination, which shall be conducted along with the comprehensive viva.

Pass requirement shall be 40% marks for ESA for each paper and an aggregate minimum of 50% marks including CA for all the papers put together during a semester. The marks for project work and viva-voce will be carried over.

The Evaluation of Fieldwork Internship in all the four semesters shall be internal. The total marks for each semester shall be 100. During the first semester the field work shall include exposure visits to various agencies giving specific social work and social welfare services in addition to the regular fieldwork internship. During the Second Semester the students shall be placed in agencies and communities and shall undergo supervised training in basic methods of social work.

During the third and fourth semesters the students shall be exposed to and placed in institutions, agencies and communities practicing specialized services in the areas of their specialized studies Students shall put in 14 hours of field work per week excluding the time taken for travel but including report writing time. The student shall be assessed on the basis of the following:

a. Regularity and punctuality in reporting for work

- b. Quality and content of work done
- c. The quality of the reports and the punctuality in submitting the report
- d. Participation in group conferences and contribution
- e. Diligence shown in seeking individual guidance from the supervisor (individual conference) and reflecting and bringing about personal development
- f. Keenness shown in undertaking the practical work, as well as the extra efforts and initiatives being made, to bring in qualitative difference to the work under supervision
- g. Special assignments undertaken on behalf of the client and/or agency, and
- h. A viva-voce at the end of the semester, to ascertain the grasp of the theories in practice and application of the host of methods of social work, the principles, and stages of social work intervention.

Assessment during the Block Field Placement during the Second and Third Semesters will be on similar grounds; however, coming to the evaluation 50% of the marks may be awarded on the basis of the recommendations of the agency personnel where the social work trainee (student) has been placed.

#### 8. DETAILED SYLLABUS WITH COURSE OBJECTIVES

#### **SEMESTER I**

#### 1.1. INTRODUCTION TO SOCIAL WORK

- **CO 1:** Understand the concepts and the evolution of professional social work.
- **CO 2:** Discuss the philosophical base of social work profession.
- **CO 3:** Apply the core competencies and professional attributes of social work in practice.
  - I. Social Work: Definition, meaning, purpose, goals and objectives; assumptions and functions of Social Work basic and ancillary methods of Social Work scientific basis of Social Work knowledge, tools, techniques, skills, and abilities of a Professional Social Work Practitioner principles of Social Work Concepts: Social Service, Social Welfare, Social Security, Social Reform, and Social Action.
  - II. History of Social Work: History of Social Work in UK and USA. Religious charity Statutes of Edward, Henry, and Elizabeth Elizabethan Poor Law Charity Organisation Society (COS) Settlement House Movement Poor Law Commissions and Beveridge Report Professional development of Social Work- Development of Social Work Education; Social Work in Ancient India Contribution of Social Reformers, Social Reform Movements, and Organisations Development of Social Work from charity to Professional Social Work. Current trends.
  - III. The Philosophico-ideological bases of Social Work: Philosophical bases of Social Work moral and religious values in Social Work philosophy -Christian, Hindu, Islam, Buddhist traditions ideologies: Liberalism, Humanism, Socialism, Communism, Democracy; Gandhian Philosophy of Social Work
  - IV. Disaster Management and other Avenues of Social Work Practice: Fields of Social Work Practice. International Social Work. Voluntarism. Definition and characteristics of a profession Social Work as profession; professional role of Social Work Practitioner Development of Social Work Education in India.
  - V. **Core competencies and attributes of a Disaster Management professional:** Holistic view of the human person acceptance of people as they are objectivity non-judgmental and non-exertive attitude ability to relate to and work with different people -emotional

maturity - self-awareness and conscious use of self - adherence to the Code of Ethics - identification with the profession - Core Competencies and Cultural Competencies of a social work practitioner envisioned by NASW/CSWE.

#### **REFERENCES:**

Cox David and Manohar Pawar (2006). International Social Work: Issues, Strategies and Programs. New Delhi: Vistaar Publications.

Desai, Murli (2010). Ideologies and Social Work Historical and Contemporary Analyses. Hyderabad: Rawat Publication.

DiNitto, Diana M. and Aaron McNeece, C. (2008). Social Work Issues and Opportunities in a challenging profession (3rd edition). Chicago: Lyceum Books.

Dubois, Brenda and Miley, Karla Krogsrud. (2002). Social Work- An Empowering Profession. Boston: Allyn and Bacon.

Hepworth, Dean, H (2010). Direct Social Work Practice-Theory and skills (8th edition). New York: Brooks/Cole.

Karla Krogsrud Miley, Michael O'Melia, Brenda DuBois. (2013). Generalist Social Work Practice: An Empowering Approach.

Misra, P.D. (1994). Social Work: Philosophy and Methods, New Delhi: Inter-India Publications.

Zastrow H. Charles. (2017). Introduction to Social work and Social Welfare. United States: Brooks/Cole Publishing

Zastrow H. Charles. (2009). The Practice of Social Work. United States: Brooks/Cole publishing company.

Zastrow, C. (2016). Generalist Social Work Practice: A Worktext. United States: Oxford University Press, Incorporated.

#### 1.2. INTRODUCTION TO DISASTERS AND DISASTER MANAGEMENT

- **CO 1:** Understand the nature and impact of disasters, globally and in India.
- **CO 2:** Describe the concepts, terminologies, developments and prospects in the field of Disaster Management.
- CO3: Analyse and evaluate the policy and administrative processes involved in Disaster Management.
  - I. **Disasters:** Concepts, and definitions (Hazard, Vulnerability, Risk, Disaster). Classification: Natural (Geological, Meteorological, Hydrological, Climatological, Biological, Extra-terrestrial) and Man-made- Technological (Industrial and Transport Accidents), Miscellaneous Accidents and Terrorism. Impacts (including social, economic, political, environmental, health, psychosocial, etc.). Differential impacts- in terms of caste, class, gender, age, location, disability. Global trends in disasters-urban disasters, pandemics, complex emergencies, climate change. Disaster profile of India.
  - II. Disaster Management: Definitions, History and Relevance. Resilience Building. Disaster cycle: Risk Management- Risk identification, risk reduction (planning, prevention, mitigation, preparedness), risk transfer; Crisis Management- Response (Search ad Rescue), Relief, Recovery and Reconstruction. Multi-disciplinary character of DM.
  - III. Disaster Policy: The International Decade for Natural Disaster Reduction, Yokhama Declaration, United Nations International Strategy for Disaster Risk Reduction (UNISDR), Hyogo Framework for Action (HFA); Sendai Frame work and Action Plan. IDRL Guidelines, Sphere standards; Disaster Policy (National Policy on Disaster Management), Disaster Management Act 2005. National Disaster Management Plan 2019.
    - IV. Disaster Administration: United Nations and its Disaster Management Mechanism-UNDP, UNDRR, WHO. Disaster Administration in India: Disaster Management Authority at National, State and District levels; Allied governmental bodies, institutions and mechanisms/resources for Disaster Management; State and National Disaster Mitigation Funds. Gaps in Disaster Policy and Administration.
    - V. **Stakeholders:** Roles and responsibilities of different stakeholders- Community, Panchayati Raj Institutions/Urban Local Bodies (PRIs/ULBs), State and Centre, Task forces and Emergency response teams. Warning Systems and allied Disaster Management bodies. Media, Fire Services, Para-military, Armed forces. Health Department,

Communication, Insurance, Civil Society, International NGOs, National and Local NGOs. Volunteers and youth groups.

#### REFERENCES

- Alexander, D. (2000). Introduction in 'Confronting Catastrophe', Oxford University Press,
- Andharia, J. (2008). Vulnerability in Disaster Discourse, JTCDM, Tata Institute of Social Sciences Working Paper no. 8.
- Blaikie, P., Cannon, T., Davis, I., Wisner, B. (1997). At Risk Natural Hazards, Peoples' Vulnerability and Disasters. Routledge.
- Carter, N. (1991). Disaster Management: A Disaster Manager's Handbook. Manila Philippines: Asian Development Bank
- Damon, Coppola P. (2007). Introduction to International Disaster Management.
- Cuny, F. 1983. Development and Disasters. Oxford University Press.
- GoI. 2005. Disaster Management Act. New Delhi: Government of India (GoI)
- GoI. 2009. National Disaster Management Policy. New Delhi: Government of India (GoI)
- IFRC. (2005). World Disaster Report: Focus on Information in Disaster, pp. 182-225
- Indian Journal of Social Work 2002. Special Issue on Psychosocial Aspects of Disasters, Volume 63, Issue 2, April.
- Kapur, Anu. (2010). Vulnerable India: A Geographical Study of Disasters. New Delhi: IIAS and Sage Publishers.
- Kapur, Anu et. al. (2005). Disasters in India Studies of grim reality. Jaipur: Rawat Publishers.
- NDMA. (2019). National Disaster Management Plan, NDMA: New Delhi
- S. Parasuraman and Unnikrishnan. (2013). India Disasters Report, Volume 1 & 2. OUP.
- UNISDR. (2002). Natural Disasters and Sustainable Development: Understanding the links between Development, Environment and Natural Disasters, Background Paper No. 5.

# 1.3. WORKING WITH COMMUNITIES- COMMUNITY BASED DISASTER RISK REDUCTION (CBDRR)

- **CO 1:** Understand the concepts and historical evolution of community practice and social action as methods of social work.
- **CO 2:** Recognize various phases and models of Community Practice, especially with respect to disasters.
- **CO 3:** Apply the principles and skills of community practice to Community based Disaster Risk Reduction
  - I. Community Organisation: Community: Definition and Types- Rural, Urban, Tribal, Maritime. Community Practice (Community organization and Social action): Definition, Goals, Components- Community groups within community- Individual- Worker-Agency; History; Principles of Community Organization and Social Action; Community organisation as a social work process; Role and Skills of Community Organizer; Differentiating Community Organisation and Community Development.
  - II. **Phases and Models of Community Practice:** Phases: Study-analysis-assessment-discussion-organisation-action-evaluation-modification and continuation. Models of Community Organisation- Jack Rothman's 3 Models: Locality Development, Social Planning and Social Action; Mary Weil's Eight models.
  - III. Social Action: Definition, Meaning, Objectives, Principles. Methods, strategies and skills for social action. Social action for social reform and social development. Social Action movements- Swadeshi (1905), Save Silent Valley (1973), Chipko Movement (1973), Narmada Bachao Andolan (1978), Anti-Corruption Movement (2011). Role of social worker in Social action. Social Action Groups.
  - IV. Community Based Disaster Risk Reduction (CBDRR): Meaning and Definition. Mainstreaming disaster risk reduction in development. CBDRR in Kerala. Steps in preparing CBDRR- Awareness generation and Community Organization; Risk and Vulnerability Assessments- Participatory Capacity and Vulnerability Assessment (PCVA) and Participatory Disaster Risk Assessment (PDRA); Planning for prevention, preparedness and mitigation at the local level; Networking and Collaborations; Components of the Community-based Disaster Management Plan

V. CBDRR Committees and Task-Forces: Local disaster Management Committees-membership and roles. Task-force- meaning, membership, responsibilities and types. Task force training: knowledge, skills and resources required for each team- early warning and dissemination team, evacuation, search and rescue team, medical and first-aid team, water and sanitation team, relief and coordination team, carcass disposal team, trauma counselling team, damage and loss assessment team. Disaster Drills; Ensuring Sustainability; Success stories.

#### REFERENCES

- ADPC (2000), "Community Based Disaster Management (CBDM): Trainer's Guide, Module 4: Disaster Management". Asian Disaster Preparedness Center (ADPC). Bangkok, Thailand.
- Community Based Disaster Risk Reduction. (2012). United Kingdom: Emerald Group Publishing Limited.
- Gamble, D. N., and Weil, M. (2010). Community Practice Skills: Local to Global Perspectives. New York: Columbia University Press.
- Hardcastle, D., Powers, P. and Wenocur, S. (2011). Community Practice: Theories and Skills for Social Workers. New York: Oxford University Press.
- Kerala State Emergency Operations Centre (SEOC). 2019. Orangebook of Disaster Management-Kerala. Kerala State Disaster Management Authority Department of Disaster Management, Govt. of Kerala. Retrieved from: https://sdma.kerala.gov.in/wp-content/uploads/2019/08/Orange-Book-of-Disaster-Management-1-2019.pdf
- Kothari, M. (2006). Development and Social Action. New Delhi: Rawat Publications
- Krist-Ashman, K.K., and, Hull, G.H. (2001). Generalist Practice with Organizations and Communities. Belmont, USA: Brooks/Cole.
- Marcus, O. (2005), "A Conceptual Framework for Risk Reduction". World Conference of Disaster Reduction, Kobe, Japan, 18-22 January 2005.
- Mayers, K. N. (1993), Total Contingency Planning for Disasters: Managing Risk, Minimizing Loss, Ensuring Business Continuity. John Wiley and Sons, New York
- NDMA. (2019). National Disaster Management Plan, NDMA: New Delhi

Ross, M. (1955). Community Organization: Theory, Principles and Practice. London: Harper and Row: London

Siddiqui, H.Y. (1984). Social Work and Social Action. New Delhi: Harnam Publications

Sphere Association. 2018. The Sphere Handbook: Humanitarian Charter and Minimum Standards in Humanitarian Response. Switzerland: Sphere

UNDRR. (2019). Words into Action: Local Disaster Risk Reduction and Resilience Strategies. Switzerland: United Nations Office for Disaster Risk Reduction (UNDRR)

#### 1.4. WORKING WITH VULNERABLE GROUPS

**CO1:** Understand the concepts and historical evolution of social work practice with groups

**CO2:** Recognize the phases of social group work and analyse the dynamics of group processes during these phases.

**CO3:** Apply the principles, models, skills and techniques of social group work practice vulnerable groups

- I. Social Group Work: Concept of group and types of groups. Definition, objectives and characteristic of group work. Impact of group experience on the individual. History of Social Group Work, Principles of group work. Scope of group work.
- II. Social Group Work Process: Phases of the group work process- Intake, study, goal-setting, intervention, evaluation. Stages of Group Development goal-setting, group norm, problem solving, decision making, conflict resolution. Programme as a tool, principles of programme planning, programme media, programme development process.
- III. Social Group Work Dynamics and Models: Social Dynamics of Groups- group size, member resources, structure, leadership, roles, norms, cohesiveness, processes, teams. Group Work Models- Social Goals Model, Remedial and Reciprocal Model. Kurt Lewin's Models.
- IV. Social Group Work recording: Principles of Recording. Types of Recording- Summary, Descriptive, Process, Problem-oriented and Summative. Formats for Group Work Recording.

V. Working with Vulnerable Groups: Types of Vulnerable Groups- Women, Children, Disabled, Elderly, Migrants, Informal Workers, Other Socially Disadvantaged Groups. Special needs of different groups and group work with these groups.

#### **REFERENCES**

Capuzzi, David; Gross, Douglas R; Stauffer, Mark D (2010). Introduction to Group work. Jaipur: Rawat publications.

Crawford, K., Price, M. and Price, B. (2015). Groupwork Practice for Social Workers. New Delhi: Sage

Fatout, M. (2017). Models for Change in Social Group Work. United Kingdom: Taylor & Francis.

Konopka, Gisela (1963). Social Group Work, A Helping Process, New York, Prentice Hall, Inc.

Lassner, J. (2013). Social Group Work: Competence and Values in Practice. United States: Taylor & Francis.

Napier, Gershenfeld. (2005). Group Theory and Experience. AITBS Publications.

Siddiqui, H Y (2008). Group Work: Theories and Practices. Jaipur: Rawat publication.

Toseland, R.W. and Rivas, R.F. (2009). Introduction to Group work practice. New York: Pearson/Allyan and Bacon.

Trecker, H B. (1990) Social Group Work Practice. New York: Women's Press.

Trecker, H.B. (1972). Social Group Work: Principles and Practice. Associated Pub. House

Weil, M., Chau, K. L., Southerland, D. (2019). Theory and Practice in Social Group Work: Creative Connections. United Kingdom: Taylor & Francis.

# 1.5. WORKING WITH INDIVIDUALS- PSYCHOLOGICAL FIRST-AID (PFA) AND REHABILITATION

**CO1:** Understand the concepts and historical evolution of social work practice with individuals/case work

**CO2:** Recognize the phases of social case work and

**CO3:** Apply the principles, skills and techniques of social case work practice to the psychological first-aid, crisis intervention and rehabilitation

- I. Social Case Work: Definition, nature, objectives, relevance, scope relation of Social Case Work to other methods of Social Work historical development of Social Case Work Principles and components of Social Case Work and ethical issues in the practice of Social Case Work. Client-Worker Relationship: Definition, use and characteristics. Transference and Counter Transference and their use in diagnosis and treatment.
- II. Phases of Case Work Process: 1. Engagement 2. Exploration 3. Planning: Assessment: Multidimensionality of assessment-critical role of assessment various components of assessment- different systems of assessment intra-personal, interpersonal and environmental systems, family system and social support systems; Tools for Exploration and Assessment: Interviewing, supportive techniques, home visits, collateral contacts and referrals. Goal setting and formulation of contract 4. Intervention: Implementation and Goal Attainment 5. Evaluation 6. Disengagement/Termination.
- III. Settings and Skills: Skills and techniques in helping process in case work: Settings of Case Work. Client-Worker Relationship: Definition, use and characteristics. Transference and Counter –Transference and their use in diagnosis and treatment. Support, Clarification, Interpretation, Suggestion, Developing insight, Identification, Resource Utilization, Environmental Modification, Counselling.
- IV. **Recording in Social Case Work:** Recording: use, structure and content Methods of recording: Verbatim, narrative, condensed, analytical and summary records supervision.
- V. **Psychological First-Aid (PFA), Crisis Intervention and Rehabilitation**: Concepts of Psychological Firs-Aid, Crisis intervention and Rehabilitation. Identifying people who require PFA. Steps in PFA. Do's and Don'ts in PFA. Types of Crisis. Types of Rehabilitation and Process involved in rehabilitation. Robert's 7-stage crisis intervention model.

#### **REFERENCES**

Gordon, G. (1965). Principles of Social Case Recording. London: Colombia University Press Guy Winch. (2013). Emotional First aid. Australia: Exisle Publications

- Hamilton, G. (1964). Theory and practice and Practice of Social Casework. London: Colombia University Press
- Hepworth et al. (2010). Theory and Skills in social work. California: Brooks/Cole, Cengage Learning
- Lester, Miles. (2011). Social Rehabilitation: Theory and Practice. Clanrye International.
- Mathew, G. (1992). An Introduction to Social Case Work. Mumbai: Tata Institute of Social Sciences,
- Munson, C.E. (1979). Social Work Supervision. London: Collier Macmillan Publishers.
- Perlman, H.H. (1957). Social Casework: A Problem-Solving Process. London: University Chicago
- Perlman, H.H. 1957. Social Casework: A Problem-Solving Process. Chicago: The University of Chicago Press
- Roberts, A.R. (2000). Crisis Intervention Handbook- Assessment, Treatment and Research. Oxford University Press
- WHO. (2013). Psychological First Aid- Facilitator's manual for orienting field workers. WHO

#### **SEMESTER II**

#### 2.1. DISASTER MANAGEMENT MODELS

- CO 1: Understand how governments respond to disasters globally
- CO 2: Identify international best practices and pitfalls in the area of Disaster Management
- CO 3: Appraise the disaster Management capabilities of India and the state of Kerala
  - I. Disaster Management Models: Uses of Disaster Models. Kelly's Circular Model. The Crunch Model. The Pressure and Release Model. Access Model. Other Models.
  - II. **International Disaster Management Experience:** International disaster management efforts during Spanish Flu (1918), Tsunamis (2004) and COVID (2019). The Cuban Model of Hurricane Risk Management, Japan's Emergency Management and response System. Bangladesh multi-hazard risk reduction Model. Critical analysis of International disaster management experience- identifying gaps and best practices.

- III. National Disaster Management Experience: Bengal Famine (1943). Bhopal Gas Disaster (1984), Surat Plague (1994), Orissa Super-cyclone (1999), Gujarat Earth Quake (2001), South India Tsunami (2004). Bihar floods. Landslides in North-East Himalayas. Heat Waves in Rajasthan, Andhra Pradesh and Telangana. Cold Waves in Rajasthan and Uttar Pradesh. Critical analysis of National experience- identifying gaps and best practices.
- IV. Kerala Disaster Management Experience: Landslides. Coastal Floods. Sabarimala Stampede. NIPAH (2018). Kerala Floods (2018). COVID (2019). The three pillars of the Kerala Model of Resilience: Education, Health and Local Governance. Best Practices: KILA Training Programme, School Safety, Social Volunteer Force, State Multi-purpose shelters, Community Kitchen and Youth Volunteerism. Critical analysis of Kerala experience.
- V. International NGOs and best practices: Red Cross, Sphere, Oxfam, World Relief,Caritas, CBM International. Critical analysis of NGO experience.

#### REFERENCES

- Aguirre, B.E. (2005). Cuba's Disaster Management Model: Should It Be Emulated? International Journal of Mass Emergencies and Disasters November 2005, Vol. 23, No. 3, pp. 55-71. Retrieved from: http://www.ijmed.org/articles/316/download/
- Blaikie P., Cannon T., Davis I. and Wisner B. (1994), At Risk: Natural Hazards, People's Vulnerability and Disasters. Routledge, London.
- Samuel, J., and Abraham George, A. (eds.). (2019). Towards disaster risk reduction in Kerala: Experiences, Perspectives and Way Forward, Plan International.
- Joseph, Jacquleen et al. (2018). Leadership for Disaster Resilience- Learning from the current practices in India. Mumbai: TISS & IIHS
- Kelly, C. (1998). "Simplifying Disasters: Developing a model for Complex Non-linear Events".
  Proceedings of International Conference on Disaster Management: Crisis and Opportunity:
  Hazard Management and Disaster Preparedness in Australasia and the Pacific Region, Cairns,
  Queensland, Australia, pp. 25-28, 1-4 November, 1998
- Kumar, S. (2008). Best Practices and Case Studies on Disaster Management: The Maharashtra Experience. Mumbai: Relief & Rehabilitation, Govt of Maharashtra

- Moore, M. et al. (2007). Models of Relief: Learning from Exemplary Practices in International Disaster Management. Working Paper- 514. RAND Center for Domestic and International Health Security
- Thummarukudy, M and Peter, B. (Eds.). (2019). Leaving no one behind: Lessons from the Kerala Disasters. Kerala: Mathrubhumi Books
- Srivastava, N., et al. (2016). Effects of Various Disaster Management Approaches: An Evidence Summary. London: EPPI-Centre, Social Science Research Unit, UCL Institute of Education, University College London.
- Santha, S. D. and Bhuvaneswari, S. (2009). A Malady amidst Chaos: A Study on the Population Vulnerability to the Chikungunya Epidemic in Kerala. Loyola Journal of Social Sciences, 23(2):111-129.
- Santha, S. D. (2015). Early Warning Systems among the Coastal Fishing Communities in Kerala: A Governmentality Perspective. Indian Journal of Social Work, 76(2): 199-222.
- Santha, S. D. (2020). Climate Change and Adaptive Innovation: A Model for Social Work Practice. London: Routledge.
- Santha, S. D. and Ratheeshkumar K. S. (2010). Population Vulnerability and Disaster Risk Reduction: A Situation Analysis among the Landslide affected Communities in Kerala, India. Jamba: Journal of Disaster Risk Studies, 3(1): 367-380.
- Reddy, S. (Ed.) (2019). The Asian Tsunami and Post-Disaster Aid. New Delhi: Springer.
- United Nations. (2006). NGOs & Disaster Risk Reduction: A Preliminary Review of Initiatives and Progress Made. Background Paper for a Consultative Meeting on A "Global Network of NGOs for Community Resilience to Disasters". Geneva: United Nations.

#### 2.2. DISASTER VULNERABILITY AND SUSATAINABLE DEVELOPMENT

- CO 1: Recognize how social structures (such as race, class, gender etc.) generates disaster vulnerability and privilege
- CO 2: Theorize how changes in society could result in better disaster risk reduction.
- CO 3: Apply critical thinking and social analysis skills to disaster situations

- I. **Social Vulnerability:** Disaster Vulnerability- Concept and Dimensions- Geographical, Social, Economic, Cultural, Technological. Social Structure. Cleavage of Caste, Class, Gender, race and ethnicity, Refugees, Migrants, Children and Women, aged, unorganized Labour, Persons with Disability. Changing society to reduce social vulnerability. Professionals' social position and resulting vulnerability and privilege.
- II. Social Theories of Disasters: Sociological Analysis and Critical Thinking about disasters. Theories and perspectives- Conflict theory, Development theory, Risk and Uncertainty Theories (Ulrich Back and Giddens), Feminist theories. Social Work Theories- The systems theory, Person-in-environment, Empowerment and Strength-based approaches. Integration of theories and perspectives.
- III. **Political Economy of Disasters:** Economic impacts of disasters- long and short-term. The Schumpeterian model and arguments against it. Economic Assessment post-disaster-quantification approaches and challenges. Factors affecting vulnerability and promoting resilience. Government dynamics in the face of disasters- political effect, bailout effect, racket effect, desperation effect. Government spending on disasters- Preventive spending and Palliative spending. Role of political development in mitigating effects of disasters. The politics of international aid.
- IV. Community Participation: Community Power: power structure-sources of power-weberian pluralist theory. Community Leadership: Concept and types. Community Participation: Concept and Degrees. Culture and Disasters: Relevance of indigenous knowledge, appropriate technology and local resources. Social Capital and Social Networks.
- V. Disasters and Sustainable Development: Definition and Meaning of Sustainable Development. The Sustainable Development Goals. Indicators and Measures of Development. Hyogo and Sendai Frameworks and Disasters. Impact of Development projects such as dams, embankments, changes in Land-use etc. Climate Change Adaptation. Prevention of Disasters. Relationship between sustainable development and disasters.

#### **REFERENCES**

Blaikie, Piers et al. (1994). At risk: Natural hazards, people's vulnerability, and disasters. New York: Routledge

- Cohen, C. and Werker, E. The Political Economy of "Natural" Disasters Charles Cohen Eric Werker. Working Paper 08-040. Harvard Business School. Retrieved from: https://www.hbs.edu/faculty/Publication%20Files/08-040.pdf
- Dominelli, Lena et al., (eds.) (2019). The Routledge Handbook of Green Social Work. London: Routledge.
- Fisher, Henry W. (1998). Response to Disaster: Fact Versus Fiction & Its Perpetuation: The Sociology of Disasters. New York: University Press of America, Inc.
- Gupta Anil K, Sreeja S. Nair. (2011). Environmental Knowledge for Disaster Risk Management. New Delhi: NIDM
- Joseph, Jacquleen. (2013). Measuring Vulnerability to Natural Hazards: A Macro Framework, Disasters, 37(2), 185-200.
- Parasuraman, S., and Acharya, N. (2000). Analysing forms of vulnerability in a disaster. The Indian Journal of Social Work, 61(4)
- Pelling Mark. (2003). The Vulnerability of Cities: Natural Disaster and Social Resilience. London: Earthscan Publishers
- Pretty, J. N., Guijt, I., Scoones, I., & Thompson, J. (1995). *A trainers' guide to participatory learning and action*. IIED Training Materials Series No. 1. London: IIED.
- The World Summit on Sustainable Development 2002: A UK Progress Report, Third Report of Session 2004-05, Report, Together with Appendix and Formal Minutes. (2005). United Kingdom: Stationery Office.
- Tierney, Kathleen. (2014). The Social Roots of Risk: Producing Disasters, Promoting Resilience. Stanford University Press
- Tierney, K. (2019). Disasters: A Sociological Approach. United Kingdom: Wiley.

#### 2.3. SOCIAL WORK RESEARCH AND STATISTICS

- CO 1: Develop an understanding of research and appreciate its significance in Social Work
- CO 2: Develop skills in the selection and formulation of research problem, reviewing literature, preparing a proposal and preparing a tool for data collection.
- CO3: Evaluate various research designs and discuss their strengths and weaknesses.

- I. Social Work Research: Concept, definition and objectives: differentiate social research and social work research Scientific enquiry: scope and nature, basic elements of scientific method Research paradigms: quantitative and qualitative- philosophical dimensions of research Epistemological and Ontological considerations.
- II. Quantitative Research Methods: Basic Steps in quantitative research: Concepts, theoretical and operational definition, role of theory in research, variables and measurement. Hypothesis- definition, types, sources and significance. Review of literature: importance and methods. Quantitative Research Designs: cross sectional, longitudinal, comparative, evaluative, action research, experimental. Quasi-experimental design. Single subject designs in social work, group design. Sampling: Concepts, types, sampling frame and logic. Methods and tools of Data Collection: Structured Interview, Self-completion Questionnaire, Structured Observation. Reliability and validity of tools. Data Analysis-procedure, tools and software. Advantages and disadvantages.
- III. Qualitative Research Methods: The Process of Qualitative Research. Qualitative Research Designs: Narrative, Case Study, Ethnography, Phenomenology, Grounded Theory, Hermeneutics. Methods of data collection: Observation, life histories, indepth/unstructured interviews, group interviews and focus group discussions, case studies. Analysis of Qualitative Data: procedure, types (Thematic analysis, Content Analysis), tools and CAQDAS. Advantages and disadvantages.
- IV. **Statistics for Social Work**: Introduction- Scope and Limitations- Descriptive statistics: Averages, Dispersion, Skewness and Kurtosis (only concept and applications, No calculations)- Inferential Statistics: Testing of Hypothesis: Chi-square test, Student's t test, ANOVA- Correlation and Regression-Factor Analysis. (concept and application only, no calculations).
- V. Writing and Publication: Major components of a research report, Report Writing: Format

   Style Content Qualities of a good research report Communicability Appendix,
   Bibliography, Footnotes, etc. Rules of Report Writing applications of APA format.
   Writing an article for publication. Dissemination of Study. Formulation of research proposal meaning and major steps of a research proposal -ethical considerations in research.

#### **REFERENCES:**

- Alan Bryman, (2012) Social Research Methods. New York: Oxford University Press.
- Babbie, Earl; Wagner, Willian E and Zaino, Jeanne (2018). Adventures in Social research using SPSS. Sage publishers.
- Cramer Duncan, (1999). Fundamental Statistics for Social Research: Step-by-Step Calculations and Computer Techniques using SPSS for Windows, New York: Routledge.
- Creswell, John W. and Creswell, J. David (2017). Research Designs: Qualitative, Quantitative and Mixed Approaches, Sage publishers.
- Darin, Weinberg. (2002). Qualitative Research methods, UK: Blackwell publishing
- Gupta, SC (2018). Fundamentals of Statistics. New Delhi: Himalaya Publishing House.
- Lal Das DC (2017). Practice of Social Research: Social Work Perspective. Jaipur: Rawat Publications
- Meier, Patrick. Digital Humanitarians How Big Data is Changing the Face of Humanitarian Response. NY: CRC Press.
- Mikkelsen B. (2005). Methods for Development Work and Research. A new guide for practitioners, Sage.
- Rubin, A. & Babbie, E. (2005). Research Methods for Social Work. California: Brooks/Cole Publishing Company.
- Sirkin, R Mark. (2007). Statistics for Social Sciences, Sage Publishers

The Handbook of Social Work Research Methods. (2010). United Kingdom: SAGE Publications.

#### 2.4. ADMINISTRATION OF HUMAN SERVICE ORGANIZATIONS (HSOs)-DISASTER RESILIENCE BUILDING

- CO1: Understand the roles and duties involved in administering and managing Social Welfare Organizations
- CO 2: To understand the disaster response and communication in crisis
- CO 3: To develop system relevant occupation and communication flow chart to direct the intervention

- I. **Social Welfare Administration:** Social Welfare Administration and Social Work Administration. Social Work Administration as a method. Tasks of Social Work Administrator. Principles of Social Work Administration. Human Service Organizations-concept, types and their functions. Social Welfare Administration in India.
- II. Skills for Social Welfare Administration: Administrative Functions (Planning, Organising, Staffing, Directing, Co-ordinating, Reporting and Budgeting); Personnel, Finance and Office Management functions. Using MS Office: Word, Excel and Power point. Registration of NGOs.
- III. **Disaster Response:** Concept, Significance, Components. Disaster Response Plan, activation and coordination. Resource Management- Financial, Medical, equipment, communication, Human, transportation, Food and essential commodity (Identification, Procuring, Propositioning and deployment). System Relevant Occupation: Critical Infrastructure management, Evacuation, search and rescue services, Humanitarian Logistics Management. Relief and recovery activities: Communication, Camp management, WASH (water supply, sanitation and hygiene promotion), Community Health, Emergency support functions, Need and damage assessment.
- IV. **Disaster Communication:** Disaster Communication- Role of Communication in Disasters, Types of communication in case of disasters (radio, satellite phones, video conferencing, electronics devices). Information and Disasters- Role of Information from disaster affected community, Disaster management Information System, Organizing and effective dissemination of information, feedback for improving information. Media and Disasters: Media representations of disasters, impact of media coverage, Social Media, Public Communication and handling of media, role of media in disaster mitigation. Capturing Local Knowledge, Information, Education, Communication, and Training.
- V. **Disaster Recovery and Reconstruction**: Concepts of Recovery and Reconstruction. Phases of Disaster Recovery. Information for Recovery- Post-disaster Review. Logistics for Recovery. Individual Disaster Recovery. Resettlement as recovery. Disaster recovery policy processes. Capturing Local Knowledge to inform recovery programmes. Recovering cultural heritage.

- Arefian, F. F. (2018). Organising Post-Disaster Reconstruction Processes. Springer
- Chowdhry, P. D. (2000). Social Welfare Administration, Atma Ram Sons., Delhi,
- Fischoff, B (1995). Risk perception and communication unplugged: Twenty years of Process. Risk Analysis, 15(2):137-145, http://www.soc.iastate.edu/Sapp/Fischhoff.pdf
- Goel, S.L., Jain R.K. (2002). Social Welfare Administration: Theory and Practice, Vol. 1 and 2. New Delhi: Deep & Deep Publications.
- Koontz, Harold and Heinz Weihrich. (2000). Essentials of Management. New Delhi: Tata McGraw-Hill Publishing Company Limited.
- Lindell, M., Prater, C., and Perry, R. (2006). Fundamentals of Emergency Management, Chapters 4. —Risk Perception and Communication. <a href="http://training.fema.gov/EMIWeb/edu/fem.asp">http://training.fema.gov/EMIWeb/edu/fem.asp</a>
- Longstaff, P.H. and Yang, Sung-Un. (2008). Communication management and trust: Their role in building resilience to surprises such as natural disasters, pandemic flu, and terrorism. Ecology and Society 13(1), <a href="http://www.ibcperu.org/doc/isis/8551.pdf">http://www.ibcperu.org/doc/isis/8551.pdf</a>
- March, A. and Kornakova, M. (2017). Urban Planning for Disaster Recovery. Butterworth-Heinemann
- Miller, D.S. and Rivera, J. D. (2011). Community Disaster Recovery and Resiliency: Exploring Global Opportunities and Challenges. Boca Raton, FL: CRC Press, Taylor & Francis
- Paton, D. and Johnston, D. (2006). Disaster resilience: An integrated Approach. Charles C Thomas Pub Ltd.
- Paul Spicker (2008). Social policy themes and approaches: Policy Press, Bristol, UK.
- Reidar, D. (2004). Evaluating Development Programmes and Projects. Second Edition., Sage Publications
- Rodriguez, H. W. Diaz, J.M. Santos and B. E. Aguirre. (2007). Chapter 29: Communicating Risk and Uncertainty: Science, Technology, and Disasters at the Crossroads in H. Rodriguez, E.L. Quarantelli and R.R. Dynes (Eds). Handbook of Disaster Research. New York, NY: Springer.
- Menon, V. C. (2015). Managing Humanitarian Logistics, New Delhi: Springer

#### 2.5. SELF-CARE SKILLS FOR THE DISASTER SOCIAL WORKERS

CO1: Initiate self-reflection to discover strengths and weaknesses

- CO 2: Plan and work towards personal and professional development
- CO 3: Diagnose personal trauma and undertake initiatives for healing
- CO 4: Develop Life Skills and Safety Skills for disaster Management practice
- I. **Self-Reflection**: Meaning. Dimensions of Self- Physical, mental, emotional, social, spiritual. Personal Values and beliefs. Philosophy of Life and Meaning of Happiness.
- II. Personal and Professional Self Development: Attributes of a mentally healthy individual.Attributes of a professional. Planning for Personal and Professional development.
- III. **Life and Safety Skills Training:** WHO Life Skills- Problem solving, critical thinking, effective communication skills, decision-making, creative thinking, interpersonal relationship skills, self- awareness, empathy, and coping with stress and emotions. Safety Skills- WASH
- IV. Self-Care: Achieving Balance. Time Management. Health- Nutrition and Exercise.Managing Relationships. Meditation and Mindfulness.
- V. **Trauma, Mal-adaptive behaviour and Self-Healing:** Trauma and its causes. Identifying the effects of Trauma. Finding the roots of Trauma. Working with Trauma and Maladaptive Behaviour.

#### **REFERENCES**

- Erlene-Grise Owens, Justin Miller, Mindy Eaves. 2016. <u>The A-to-Z Self-Care Handbook for Social Workers and Other Helping Professionals</u>. New Social Worker Press.
- Jasmin Lee Cori. 2008. Healing from Trauma: A Survivor's Guide to Understanding Your Symptoms and Reclaiming Your Life. Da Capo Lifelong Books
- Laura Van Dermoot Lipsky. 2009. <u>Trauma Stewardship: An Everyday Guide to Caring for Self While</u>

  <u>Caring for Others</u>. Berrett-Koehler Publishers
- Laurence Heller and Aline Lapierre. 2012. Healing Developmental Trauma, How Early Trauma Affects Self-Regulation, Self-Image, and the Capacity for Relationship. North Atlantic Books
- Loretta Pyles. 2018. <u>Healing Justice: Holistic Self-Care for Change Makers</u>. Oxford University Press
- Melanie Greenberg. 2017. The Stress Proof Brain. New Harbinger Publications
- Param Pujya Dadashri. 2003. The Science of Karma. Ahmedabad: Mr. Ajit C. Patel Mahavideh Foundation

Paulo Coelho. 1988. The Alchemist. Harper Collins Publishers.

Robin Sharma. 1997. The Monk who sold his Ferrari. Jaico Publishing House.

SaraKay Smullens. 2015. <u>Burnout and Self-Care in Social Work: A Guidebook for Students and Those</u> in Mental Health and Related Professions. NASW Press

Swami Vivekanada. 1973. Karma Yoga. Deutschland: Jazzybee Verlag Jurgen Beck

Thomas M. Skovholt and Michele Trotter-Mathison. 2011. <u>The Resilient Practitioner: Burnout Prevention and Self Care Strategies for Counselors, Therapists, Teachers and Health Professionals</u>. Routledge.

#### SEMESTER III

#### 3.1. PROJECT MANAGEMENT FOR DISATER MANAGEMENT

CO1: Understand the concept of Project Management

CO2: Discuss the issues faced during the course of in project cycle and how to overcome them

CO3: Prepare project proposals in the Disaster Management setting

- I. Fundamental Elements of Project Management: Definition, Relevance, Scope and. Types of Projects, Relationship of Project, Program, Portfolio, And Operations Management: the Project Life Cycle, the ILO Framework and the role of the Project Manager. Post Disaster Rebuild Methodology (PDRM), Project Disaster.
- II. **Project Initiation:** Project Identification-essential guiding principles, Participatory Disaster Appraisal (PDA), Values Guiding Project Management: Justice, Care, Solidarity, a Project Charter, Components of project charter, Identifying Stakeholders
- III. **Project Planning: Project Selection and the Organization:** Organisational planning-strategic planning, operational planning and project planning: vision, mission, goal, objectives, activities and SWOT Analysis: Results-based management (RBM) Log Frame Approach (LFA) Components of LFA and LFA Matrices, Creating Work Breakdown Structure (WBS) and Budgeting
- IV. **Project Execution, Monitoring, Controlling and Closure**: Activities Scheduling, Net-Working-Critical Path Method (CPM), Project Evaluation and Review Technique (PERT),

- Purpose of Monitoring and Evaluation Components of a good Monitoring and Evaluation System – Tools for Monitoring and Evaluation
- V. **Project Proposal Writing for Disaster Settings:** Need and importance of Project Proposal, Components of Good Proposal, Identifying potential problems in Disaster Management setting and preparation of proposals- Community based Disaster Risk Reduction project, Camp Management Project, Rehabilitation Project.

#### **REFERENCES**

- A Guide to the Project Management Body of Knowledge (PMBOK® Guide, (2017), Sixth edition. Project Management Institute.
- Brunt, C. (2017). Human Resource Management in International NGOs: Exploring Strategy, Practice and Policy. UK: Palgrave Macmillan.
- Curlee, W. & Fleischer F. (2005 Sept). The humanitarian side of project management. PMI Global Congress 2005, Toronto, Canada.
- Dale, Reidar 2003 The logical framework: an easy escape, a straitjacket, or a useful planning tool? Development in Practice 13 (1): 57-70
- Devaux, A. Torero, M, Donovan, J., Horton, D (2016) Innovation for inclusive value-chain development: Successes and challenges, IFPRC, Accessible at <a href="https://www.ifpri.org/publication/innovation-inclusivevalue-chain-development-successes-and-challenges">https://www.ifpri.org/publication/innovation-inclusivevalue-chain-development-successes-and-challenges</a>
- DFID. (2003). Tools for Development: A handbook for those engaged in development activity. Accessible at <a href="http://www.managingforimpact.org/resource/tools-development-handbook-those-engageddevelopment-activity">http://www.managingforimpact.org/resource/tools-development-handbook-those-engageddevelopment-activity</a>

#### https://www.projectmanager.com

- ILO (2010) Project Design Manual: A step-by-step tool to Support the Development of cooperatives and other Forms of self-help organisations. Accessible at https://www.ilo.org/wcmsp5/groups/public/--- ed\_emp/---emp\_ent/---coop/documents/instructionalmaterial/wcms\_159819.pdf
- Natarajan, T., W. Elsner, and S. Fullwiler. Institutional Analysis and Praxis: The Social Fabric Matrix Approach

- Prennushi, G., G. Rubio, and K. Subbarao. 2000. "Monitoring and Evaluation." In Sourcebook for Poverty Reduction Strategies. Washington, D.C.: World Bank.
- Project Management Institute. (2005). Project management methodology for post disaster reconstruction (2005 ed.) Newtown Square, PA: Project Management Institute.
- Rapp, R.R. 2011. Disaster Recovery Project Management: Bringing Order from Chaos (Purdue Handbooks in Building Construction). Purdue University Press.
- Roy, Sam M. (2002). Project Planning and Management: Focussing on Proposal Writing. A Pradesh: CHAI.
- UNDP, 2002. Handbook on Planning, Monitoring and Evaluation for Development Results. UNDP. <a href="http://web.undp.org/evaluation/handbook/">http://web.undp.org/evaluation/handbook/</a>
- Warnes, Joseph, C.E. (2018). Workable Project Management Procedures for Disaster Reconstruction. Publisher: Christian Faith Publishing, Inc.

#### SPECIALIZATION A: DISASTER HEALTH

#### 3.2.A. MEDICAL INFORMATION FOR DISASTER HEALTH PRACTICE

- CO 1: Understand the concept of Emergency medical services
- CO 2: List and describe common medical terms and procedures.
- CO 3: Understand the common medical problems handled during disaster
- CO 4: Analyse the role of Disaster Health Social Worker in times of disasters
- I. **Emergency Medical Services (EMS) Systems:** The field of Disaster Medicine. EMS Systems and Process, components. The Emergency First Responder (EMR). The social workers and the field of EMS. Medical, Legal and Ethical Issues. Documentation.
- II. **Medical Concepts:** Health. Indicators of Health. Human Body and the Organ Systems. Departments in a hospital. Mortality, Incidence, Prevalence. Basic Medical and surgical procedures (life support, Intubation, anaesthesia, decontamination, puncture and cannulation etc.), tests (MRI, ECO etc.) and equipment (Catheter, Pacemaker etc.).
- III. Medical Interventions: Casualty Prediction and Disaster Plan Activation based on Type and Severity Disaster. CBRNE. Medical Response and the CO-S-TR Model framework. Incident Command System. Pre-hospital medical management of victims. Medical Care for large mass gatherings. Triaging medical & psychosocial. Identification of valuable

- groups. Patient Assessment. Identification of hospitals and other medical facilities to offer efficient disastrous medical service. Safe patient transportation –Vehicle extrication and Special Rescue. Incident Management. EMR Life Support Kit.
- IV. Medical Conditions: Disaster-specific (Crush syndrome, Burns etc.) or group-specific (Pediatric, geriatric etc.) conditions. Common Symptoms presented. Types of emergencies. Specific aspects of emergency medicine.
- V. **Epidemiological Study of Disaster:** Principles of Disaster Epidemiology, Rapid Health Assessment, Rapid health needs assessment. Outbreak Investigation. Environment health hygiene and sanitation issues during disasters, Preventive and prophylactic measures including Measles immunization, ORS, water, supply, chemoprophylaxis, food fortification, food supplements, MISP-Reproductive Health Care.

#### **REFERENCES**

- Chapleau, W. (2015). Emergency First Responder, Second Edition + Rapid First Responder, Second Edition. United States: Jones & Bartlett Learning, LLC.
- Ciottone et al. (2015). Ciottone's Disaster Medicine E-Book. United States: Elsevier Health Sciences.
- David E. Hogan, Jonathan L. Burstein. 2007. Disaster Medicine. (2007). United Kingdom: Lippincott Williams & Wilkins.
- Emily Ying Yang Chan, Rajib Shaw. 2020. Public Health and Disasters
- Grafft, J. A., Grafft, K. K. (2020). Essentials for The Emergency Medical Responder, 2nd Edition. (n.p.): Customized Safety Training, LLC.
- Guidelines for Competency Based Training Programme in DNB Emergency Medicine. NBE:

  National Board of Examination. Accessed from:

  https://nbe.edu.in/mainpdf/curriculum/EMERGENCY-MEDICINE.pdf
- Jan de Boer, Marcel Dubouloz. (2020). Handbook of Disaster Medicine. (2020). United States: CRC Press.
- Park, K. (2017). Park's Textbook of Preventive and Social Medicine. India: Bhanot Publishers.
- Pollak, A. N., Schottke, D. (2010). Emergency Medical Responder: Your First Response in Emergency Care. United States: Jones & Bartlett Learning.
- Roberts, M. J. (2007). Mass Medical Care with Scarce Resources: A Community Planning Guide. United States: Agency for Healthcare Research and Quality.

## 3.3.A. MENTAL HEALTH AND DISASTERS

- CO1: Understanding the concept of mental health and mental health disorders
- CO 2: Collect Case History and administer Mental Status Examination
- CO 3: Apply the principles of Mental health interventions to the field of Disaster Management.
  - I. Mental Health During Disasters: Definition of Mental Health. Characteristics of a Mentally Healthy person. Well-being and Disasters- Definition of well-being. Happiness. Tools to measure well-being and happiness. Factors affecting well-being post-disaster. Social Support, Social Networks and Environment Friendly Practices. Integrating Mental Health with Preparedness. Mental Health Systems during Disasters. Need Assessment.
  - II. Classification of Disorders: Concepts of Normalcy. Mental Disorders- Etiology and Factors influencing Prognosis (Predisposing, Precipitating, Perpetuating, Protecting, Present) The purpose of Classification. Introduction to ICD-11 and DSM-10, Psychiatric Disorders and their symptoms.
  - III. Psychiatric Evaluation and Treatment: The field of Disaster Psychiatry. Symptomatology, Case History taking, Mental Status Examination. Psychopharmacology, Psychotherapy and Alternative Treatments.
  - IV. Mental Health Conditions during Disasters: Psychological and Behavioural responses during Disorders, Distress and Health Risk Behaviours, Serious Mental illnesses, PTSD, Alcoholism, Personality Issues, Grief
  - V. **Psychiatric Social Work:** Concept, Objectives. History. Roles and Duties. Psychiatric Team. Settings: Child and Adolescents, Suicide Prevention, Geriatric Interventions. Other Settings of Psychiatric Social Work. Cultural Sensitivity.

#### **REFERENCES**

- Yuval Neria, Sandro Galea, Fran H. Norris. (2009). Mental Health and Disasters. United Kingdom: Cambridge University Press.
- Wee, D. F., Myers, D. G. (2005). Disaster Mental Health Services: A Primer for Practitioners. United Kingdom: Brunner-Routledge.
- Cozza, S. J. (2014). Disaster and Trauma, An Issue of Child and Adolescent Psychiatric Clinics of North America, E-Book. United Kingdom: Elsevier Health Sciences.

- Stoddard, F. J. (2012). Disaster Psychiatry: Readiness, Evaluation, and Treatment. United States: American Psychiatric Publishing.
- Oriol, W. E., Nordboe, D. (1999). Psychosocial Issues for Older Adults in Disasters. United States: U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Mental Health Services.
- Chan, E. Y. Y. (2017). Public Health Humanitarian Responses to Natural Disasters. United Kingdom: Taylor & Francis.
- Barlow, D. (2008). Clinical Handbook of Psychological Disorders. New York: Guilford
- WHO International Classification of Disorders- 11
- Sekar, K., Parthasarathy, R. and Muralidhar, D. (2007). Handbook of Psychiatric Social Work. Bangalore: NIMHANS
- Nirmala, B.P. (2014). Handbook of Psychiatric Rehabilitation Services. Bangalore: NIMHANS
- Corcoran, J. and Walsh, J. (2013). Mental Health in Social Work: A Casebook on Diagnosis and Strengths Based Assessment. New York: Pearson
- McQuistion et al. (2012). Handbook of Community Psychiatry. New York: Springer
- Ahuja, N. (2011). A Short Textbook of Psychiatry. New Delhi: Jaypee
- Jacquleen, Joseph (2016) Disaster Mental Health vs. Psychosocial Well Being: The Need for a True Paradigm Change, Austin Journal of Emergency and Critical Care Medicine, 3 (2), 1–3, 2016. [ISSN: 2380-0879]
- A.P. Francis, P. La Rosa, L. Sankaran, and S.P. Rajeev (Eds.), Social Work Practice in Mental Health: Cross-Cultural Perspectives, New Delhi: Allied Publishers, 2015.

## 3.4.A. DISASTER HEALTH MANAGEMENT

CO1: Understand the different components of Disaster Health Management

**CO2:** Become an integral part of Hospitals and Medical Teams in preparing for and intervening during disasters

CO3: Analyse the role of Medical Social Worker in a Disaster

- I. Introduction to Disaster Health Management: Public Health issues during Disasters. Various definitions in disaster health management (DHM). Planning for Disaster health management throughout the Cycle. Decision making and Participation. Community Health Groups. Access to Medical resources and supplies. Identification and Training of Disaster Health Volunteers. Disaster Health System in India- PHC, CHC, NHM.
- II. Phases of Disaster Health Response: Notification, Search and Rescue, Triage, Medical Care of Disaster Victims, Disaster Communications, Record keeping, Transportation and Evacuation, Debriefing/ Critical Incident Stress Debriefing (CISD). Recovery. Rapid Assessment of emergency Health Care needs. Medical Care of Mass Gatherings. Medical surge, Surge capacity. Risk Assessment. Self-protection contaminated area and decontaminated area. ICT and Health Communication. Community Awareness and Volunteer Training. Medical Equipment and Supplies during Disasters.
- III. **Disaster Hospital Planning:** Preparing the Hospital emergency Plan- Disaster Management Committee. Centre command structure. The jobs cards. Plan activation of different areas of the hospital. Disaster beds/ how to increase bed capacity in emergencies. Planning of public information and liaison. Planning for security. Logistic planning (i. Communications planning ii. Transportation planning iii. Store planning iv. Personnel planning v. Financial planning). Operations Planning (Essential Medical and non-medical staff education. Triage. Activation of nursing staff. Activation of ancillary services. Activation of support services). Phase of staff education and training. Disaster activation and Post disaster de-briefing.
- IV. **Disaster Medical Teams (DMT):** Team work in Disaster Health. Incident Command System. Members of the team: Advanced clinicians (nurse practitioners/physician assistants), medical officers, registered nurses, respiratory therapists, paramedics, pharmacists, pharmacy technicians, emergency medical technicians, safety specialists, logistical specialists, information technologists, communication and administrative specialists, Medical Social Workers, Hospital workers, Healthcare workers, Humanitarian aid workers, Public health workers, Health profession students, Volunteers. Role of different Team members and the role of Disaster Health Social Worker.
- V. Role of Disaster Health Management Social Worker: Medical and Health Social Work-Concept, meaning and Objectives. Practice Settings of Medical Social Workers. Roles of Medical Social Worker. Challenges faced in Medical Social Work. Disasters and Medical Social Worker- Knowledge, Values and Skills.

## **REFERENCES**

- Afolabi, M.O. (2018). Public Health Disasters: A Global Ethical Framework. Germany: Springer International Publishing.
- Beder, J. (2013). Hospital Social Work: The Interface of Medicine and Caring. (n.p.): Taylor & Francis.
- Cooper, C. (2014). Wellbeing: A Complete Reference Guide, Interventions and Policies to Enhance Wellbeing. Germany: Wiley.
- Daniel Kollek. (2013). Disaster Preparedness for Health Care Facilities. United Kingdom: People's Medical Publishing House-USA.
- Garces Carranza, C. M. (2019). Hospital Social Work Interventions. United States: Goldtouch Press, LLC.
- Ibrahim Arziman. (2015). Field Organization and Disaster Medical Assistance Teams. Turkish Journal of Emergency Medicine. Volume 15, Supplement 1, October 2015
- Institute of Medicine. 2013. Engaging the Public in Critical Disaster Planning and Decision Making: Workshop Summary. Washington, DC: The National Academies Press. https://doi.org/10.17226/18396.
- Kadushin, G., Egan, M. (2012). Social Work Practice in Community-Based Health Care. (n.p.): Taylor & Francis.
- Ministry of Home Affairs. (n.d.) Guidelines for hospital emergency preparedness planning: Ground DRM Programme (2002–2008). New Delhi: Ministry of Home Affairs, Government of India.
- Nelson C, Lurie N, Wasserman J, Zakowski S. Conceptualizing and defining public health emergency preparedness. Am J Public Health. 2007; 97 Suppl 1: S9-11. DOI: AJPH.2007.114496 [pii].
- Pathak, S. H. (1961). Medical Social Work in India. India: Delhi School of Social Work.
- Reilly, M. J., & Markenson, D. S. (2011). Health care emergency management: Principles and practice. Jones & Bartlett Publishers.
- Shoaf KI, Rottman SJ. Public health impact of disasters. Australian Journal of Emergency Management. 2000;15(3): 58-63.
- Spitzer, W. J., Allen, D. K. M. (2015). Social Work Practice in Healthcare: Advanced Approaches and Emerging Trends. United States: SAGE Publications.

Ugarte et al. (n.d.). Planning and triage in the disaster scenario. https://www.aap.org/en-us/Documents/disasters\_dpac\_PEDsModule3.pdf

## SPECIALIZATION B: TECNOLOGIES FOR DISASTER MANAGEMENT

#### 3.2.B. ICT FOR DISASTER MANAGEMENT

- **CO 1:** Understand the basics of ICT and its recent developments in the field of disaster management
- **CO 2:** Apply advanced ICT for emergency management
- **CO 3:** Appreciate the ways in which ICTs can be used in disaster risk assessment, analysis ,and visualization
- **I. Information Communication Technology (ICT):** Concept and relevance of ICT, history of ICT development, ICT in Indian education, ICT development index, data and data management, types of data, methods of organizing data, file management, data communications and computer networks- elements of communication systems, data transmission modes, speed, digital and analogue data transmission, data governance, database management system, hazard related official statistics of IMD, CWC, GSI, BMTPC and NRSC, big data analytics and social media in disaster management.
- **II. Basics of Computer System:** Computer, basic organization of computers, components of the computer system, classification of computers, functions of computer system, hardware, software, role of computer systems in the contemporary world, computer memory and types, secondary storage devices, computer applications, software packages, operating systems.
- III. ICT for Disaster Risk Reduction: ICT and emergency management cycle, historical hazards data sources, GLIDE, GAR risk data platform, ICT for awareness, ICT for community-based preparedness planning, use of mobile apps for reporting disaster incidents, last mile communication, cell broadcasting, internet of things and disaster response, challenges of ICT for disaster risk reduction.
- IV. Advanced Technologies for Emergency Management: Early warning systems for various disasters, DART, helplines, text to speech, broadcast technologies- infrastructure-independent and dependent, remote sensing and GIS technologies, emergency communication systems, national emergency communication plan-India, satellite phones and VHF radio, HAM, public address systems, drones, mobile applications, artificial intelligence, robotics, blockchain, crowdsourcing, google crisis map, bringing early warning to people-public partnership responsibilities, global case studies on innovative technologies and disaster reduction- The Tsunami Early Warning System (TEWS) for South-East Asia, sahana disaster management system in the aftermath of the Indian Ocean Tsunami in 2004, typhoon Morakot, 2009, drones for cyclone damage assessment in Vanuatu.

**V. Disaster Management Information Sources:** Forecasting & warning in Indian context, pacific disaster center, national, state and district emergency operation centers, EM-DAT, CRED, GFDRR, SAHANA, GDACS, India Disaster Resource Network (IDRN).

#### **REFERENCES**

Dafane P (2004) Advanced Computer Applications: An Information Technology Approach, Emc Pub; Pap/Cdr edition

Dekker, Sidney (2019). Foundations of Safety Science: A Century of Understanding Accidents and Disasters. New York: Routledge.

ITU (2019), Disruptive technologies and their use in disaster risk reduction and management, international telecommunication union

Jochen Z and Andres K (2003), Early Warning Systems for Natural Disaster Reduction, Springer-Verlag Berlin Heidelberg GmbH

John P C (2017), Technology and Emergency Management, Wiley; 2nd edition

Navathe, Elmasri and, Addison-Wesley (2019). Fundamentals of Data base Systems. New Delhi: S.Chand & Company LTD.

NDMA, ICT for Disaster Risk Reduction- The Indian Experience, Government of India Ministry of Home Affairs, National Disaster Management Division

Oljansek, K., Marin Ferrer, M., De Groeve, T., Clark, I., (Eds.) (2017). Science for disaster risk management: knowing better and losing less. EUR 28034 EN, Publications Office of the European Union, Luxembourg

Rajaraman V and Adabala N (2014), Fundamentals of Computers, Prentice Hall India Learning Private Limited; 6th edition

Ruan D (2013), Decision Aid Models for Disaster Management and Emergencies, Atlantis press, Belgium.

Samui P, Kim D, Ghosh C- ed.s (2017), Integrating Disaster Science and Management Global Case Studies in Mitigation and Recovery. Amsterdam: Elsevier

Sreeja S N, Gupta A K & Kalus R (2013), databases and statistics for disaster risk management, National Institute of Disaster Management, Government of India.

Wattegama C (2007), ICT for Disaster Management, Asia-Pacific Development Information Programme, United Nations Development Programme

Zschau, Jochen, Küppers, Andreas N. -Eds. (2003), Early Warning Systems for Natural Disaster Reduction, Springer-Verlag Berlin Heidelberg

## 3.3. B. SCIENCE AND TECHNOLOGY FOR RISK ASSESSMENT, PREVENTION AND PREPAREDNESS

- **CO 1:** Recognize various tools and technologies that can improve hazard, vulnerability, and risk assessments in the contemporary times
- CO 2: Understand specific risk assessment technologies for major hazards
- **CO 3:** Analyse and apply leading technology practices for disaster preparedness, response, recovery and reconstruction
- **I. Dimensions of Disaster Risk**: Components of risk-likelihood and consequences, intensive, extensive, and emerging risk, Crichton's risk triangle, importance of risk assessment, risk assessment process, hazard identification, vulnerability analysis, event and fault tree analysis, Hazard Operability Study (HAZOP), event probability model, risk matrix, risk indexes, risk registers, disaster risk assessment and livelihood, vulnerability index calculation, evaluation of risk in the SMAUG approach, Failure Mode And Effect Analysis (FMEA), Crawford Slip Method (CSM), InaSAFE impact model, Global Risk Assessment Model (GRAM). Concept of prevention, structural and non structural measures, disaster regulations, land use planning.
- II. Hazard Specific Risk Assessment: The need of science and technology agenda in DRR, risk management as an engine for sustainable development, international hazard warning mechanisms, hazard assessment technologies for landslide, drought, flood, earthquake, forest fire, epidemics, climatic change, chemical release and nuclear accidents. Basics of environmental risk assessment, Environmental Impact Assessment (EIA)
- III. Technology Practices For Disaster Preparedness: InaSAFE preparedness software, CAMEO (Computer-Aided Management of Emergency Operations), ALOHA hazard modelling, MARPLOT software for chemical emergencies, NukeBlast app for nuclear emergencies, pressure and release model by Blaikie, HAZUS methodology, community mobilization for early warning, community based early warning system, challenges of EWS, community radio, impact-based forecasting, participatory mapping for disaster relief, personal protective equipment, traditional technologies for disaster reduction, ecosystem based DRR, linking green technologies to DRR, risk communication, seven cardinal rules of risk communication
- **IV. Science and Technology for Disaster Response:** Incident Response System (IRS), Emergency Operation Centres (EOC), Emergency Support Functions (ESF), advanced equipment used in search and rescue, personal protective equipment, Simple Triage Rapid Treatment (START) algorithm, QLARM estimates, artificial intelligence for emergency response, robotics in disaster response, Decision support systems (DSS) and risk management.

V. Science and Technology for Disaster Recovery and Reconstruction: Global hazard specific reconstruction practices, standards for disaster reconstruction, Build Back Better (BBB), low cost and low-tech disaster-proof shelters, retrofitting for buildings, post disaster debris management, global case studies on technology- post-disaster housing reconstruction and livelihood security

#### **REFERENCES**

Aiti-Selmi, Murray, Wannous, Dickinson, Johnston, Kawasaki, et al. (2016), Reflections on a science and technology agenda for 21st century disaster risk reduction International Journal of Disaster Risk Science.

Basher, R. (2013) Science and Technology for Disaster Risk Reduction: A review of application and coordination needs. Final Report. Commissioned by the UNISDR

Dilanthi A and Richard H (2011), Post-Disaster Reconstruction of the Built Environment: Rebuilding for Resilience, Wiley-Blackwell; 1st edition

Estrella, M. and N. Saalismaa (2013). Ecosystem-based Disaster Risk Reduction (Eco-DRR): An Overview. In: Renaud, F., Sudmeier-Rieux, K. and M. Estrella (eds) The Role of Ecosystems in Disaster Risk Reduction. UNU-Press: Tokyo

ISDR (2008), Indigenous Knowledge for Disaster Risk Reduction: Good Practices and Lessons Learned from Experiences in the Asia-Pacific Region

Mercy Corps (2010), Establishing Community Based Early Warning System practitioner's handbook, Mercy Corps and Practical Action, Nepal

NDMA (2010), National Disaster Management Guidelines—Incident Response System, National Disaster Management Authority Government of India

Perspectives of science and technology in disaster risk reduction of Asia International Journal of Disaster Risk Science, 7 (2016), pp. 329-342

Reid B (2013), Science and Technology for Disaster Risk Reduction: A review of application and coordination needs – final report Commissioned by the Secretariat to the UN International Strategy for Disaster Reduction (UNISDR) Geneva

Ulrich R (2016), Natural Disaster Risk Management- Geosciences and Social Responsibility, Springer International Publishing

Zhi L and Kaoru O (2018), Smart Technologies for Emergency Response and Disaster Management, IGI Global publishers

## 3.4.B. GEOGRAPHICAL INFORMATION SYSTEM IN DISASTER MANAGEMENT

CO 1: Understand the basic concepts of Geoinformatics, GIS and Remote Sensing

- CO 2: Apply spatial and non-spatial data information to a wide range of spatial problems
- **CO 3:** Familiarize Q-GIS software functionalities and elementary analysis
- **I. Geoinformatics:** Definition, components of geoinformatics, evolution of geoinformatics as a multidisciplinary subject, geoinformatics products, kinds of geo spatial data, raster and vector data, sources of raster data, data products and formats, education in geoinformatics, recent trends in geoinformatics, geoinformatics in India-national agencies and initiatives
- **II. Remote sensing**: Definition, history of remote sensing, properties of electromagnetic radiation and spectrum, remote sensing process, spectral signature, passive and active remote sensing, remote sensing platforms, major sensors, atmospheric windows, remote sensing satellites and their characteristics, photogrammetry, visual image interpretation, advantages and disadvantages of remote sensing, Indian remote sensing programme & other satellite, remote sensing technology and emergency management, remote sensing data products and formats, history of cartography, map elements, characteristic of maps, principles of map naming, map types, toposheets, digital and analogue maps, datum/spheroids and coordinate systems, map projection different projections and their characteristics, map reading and steps for interpretation of topographical map
- **III. Global Navigation Satellite System (GNSS)**: History of GNSS, components of GNSS, various global navigation systems -GLONASS, Galileo and Global Positioning System (GPS), comparison of different GNSS systems, Indian scenario, differential GPS, GPS segments, principle of GPS operation, sources of error in GPS observation, GPS measuring techniques, GPS field survey procedures, key applications of GPS
- **IV. Geographical Information Systems (GIS):** Definition, history of GIS development, GIS as a science and technology, spatial thinking, spatial relationships, components of GIS, commercial and free and open-source GIS packages, data capture techniques, geocoding, differences between CAD and GIS, Database Management Systems (DBMS) in GIS, functions of DMBS, data analysis tools, methods of data inputs in GIS
- **V. Over view of Q-GIS software**: Versions, Q-GIS development and functionality, Q-GIS-principles, operation protocols, Q-GIS installation, graphical user interphase, basic tools and panels, development of GIS based decision support for disaster risk reduction, advantages of Q-GIS, QGIS Plugins, basic geoprocessing in Q GIS

#### **REFERENCES**

Burrough P.A. and McDonnel A. R. (1998). Principles of Geographic information Systems. Spatial information systems and Geostatistics. Oxford university press

Frederick K L and Edward J. T (2016), Essentials of Geology, Pearson publications

Graser A (2016), Learning QGIS- Third Edition, Packt publishing

Heywood I., Cornelius S., Crever Steve. 2003. An Introduction to Geographical Information Systems. Pearson Education

Lillesand T. M., Kiefer R. W. and Chipman J. W. 2008. Remote Sensing and Image Interpretation (Sixth Edition). John Wiley & Sons, USA

Longley, P., Goodchild, M., Maguire, D. & Rhind, D. (2005). Geographic Information Systems and Science. John Wiley & Sons, Ltd, England, UK

Milan K, Zlatanova S, Temenoujka L. Bandrova -Eds. (2010), Geographic Information and Cartography for Risk and Crisis Management Towards Better Solutions, Springer

Patrick M, Sungsoon Hand Cassie F (2019), GIS An Introduction to Mapping Technologies, CRC press

Paul R B and David R M (2014), Key Concepts in Geomorphology, W. H. Freeman and Company Publishers

Robinson H A et al (1995), Elements of cartography, John Wiley & Sons; 6th edition

Sheppard, E. S. 1995. GIS and Society: Towards a Research Agenda. Cartography and Geographic Information Systems 22 (1): 5–16.

Wegmann, M., B. Leutner, and S. Dech. Remote Sensing and GIS for Ecologists: Using Open-Source Software. Pelagic Publishing, Exeter, 20

George J and Jeganathan C- editors (2018), Fundamentals of Remote Sensing, The Orient Blackswan; Third edition

## **SEMESTER IV**

#### 4.1. COUNSELLING FOR TRAUMA VICTIMS

- CO 1: Understand the basics of Mental Health, crisis intervention and trauma counselling
- **CO 2:** Critically engage with the practices of crisis intervention and trauma counselling and learn from good practice in the past
- **CO 3:** Recognize the impact of different psychosocial approaches and be able to critically discuss its implications for the target populations
  - I. Introduction to Counselling: Definition, and scope Differentiating from Guidance, Case Work and Psychotherapy, Contexts: Remedial, Preventive, Developmental, Crisis Forms: Telephone Counselling, Crisis Counselling, Vocational Counselling Goals: Immediate and Long term. Psychological; Psychoanalytic/psychodynamic theories, behavioural theories, humanistic theories, and existential theories, evolutionary theory, neuropsychology and counselling.
  - II. Introduction to Trauma Counselling and Mental Health, Emotional Bleeding, Emotional Hygiene: Psychological Responses to Disaster and Traumatic Events, mental health impact of disasters, social determinants of mental health in both the Global North and the Global South. Community approaches to psychosocial support
  - III. Psychology of disasters: Theory of Planned Behaviour, Social Cognitive Theories, Solution Focused Brief Therapy
  - IV. **Trauma Counselling:** Meaning, Definition and Types of trauma and counselling: Theories of trauma Counselling; Effects of trauma in different humanitarian crises
  - V. **Disaster Trauma on Vulnerable groups:** Effects of disasters on children, Migrants Dalits and tribals, Refugees **Gender Based Sexual Violence** (**GBSV**) in **Disasters:** Psychosocial effects and responses to GBSV and treating children affected by crises: Community-Based trauma counselling.

#### **REFERENCES**

Gladdings, S.T. (2009). Counselling a Comprehensive Profession (9th Ed.). New Jersey: Merrill/Pearson.

- Greenstone, James L (2015). Emotional First Aid: A Field Guide to Crisis Intervention and Psychological Survival.
- Guha-Sapir, D., Hoyois, P.H., & Below, R. (2014). Annual Disaster Statistical Review 2013: The Numbers and Trends. Brussels: CRED.
- Halpern, James and Mary Tramontin (2006). Disaster Mental Health: Theory and Practice (Crisis Intervention).
- Jacobs, Gerard A. Community-Based Psychological First Aid A Practical Guide to Helping Individuals and Communities During Difficult Times. Amsterdam: BH.
- James, Michael (2020). Emotional First Aid: How to Feel Better in Times of Crisis. Watkins Media,
- Lopez-Ibor, J.J, Christodoulou, G., Mai, M., Sartorius, N., & Okasha, A. (2005). Disasters and Mental Health (ed.). New Jersey: John Wiley & Sons Ltd.
- Mechthild von Vacano, Manfred Zaumseil (auth.), Manfred Zaumseil, Silke Schwarz, Mechthild von Vacano, Gavin Brent Sullivan, Johana E. Prawitasari-Hadiyono (eds.) Cultural Psychology of Coping with Disasters: The Case of an Earthquake in Java, Indonesia, New York: Springer-Verlag.
- Munich Re. (2015). Munchener Ruckversicherungs-Gesellschaft, Geo Risks Research, NatCatSERVICE Swiss Re, sigma, No 3/2014 Ursano,
- Nelson-Jones, R. (2004). Basic Counselling Skills: A Helper's Manual (4th Ed.). London: Sage 2. Egan, G. (2010). The Skilled Helper: A Problem-Management and Opportunity-Development Approach to Helping (9th Edn.). California: Cengage.
- Nelson-Jones, R. (2004). Practical Counselling and Helping Skills (4th Edn.). London: Sage.
- R.J., Fullerton, C.S., & Norwood, A.E. (2003). Terrorism and Disaster: Individual and Community Mental Health Interventions. New York: Cambridge University Press.
- Winch, Guy (2014). Emotional First Aid: Healing Rejection, Guilt, Failure, and Other Everyday Hurts. Australia: Exisle Publishing Pty Ltd.
- Zastrow, C.H. (2012). Practice of Social Work (10th Edn). CA: Cengage.

## SPECIALIZATION A: DISASTER HEALTH

# 4.2.A. POST-TRAUMATIC STRESS DISORDER (PTSD) AND COGNITIVE BEHAVIOURAL THERAPY (CBT)

**CO1:** Understand PTSD, its symptoms, etiology, diagnosis and treatment.

CO2: Evaluate the efficacy of CBT as an effective method for PTSD treatment

**CO3:** Apply CBT principles and technique to PTSD treatment

- I. Post-Traumatic Stress Disorder: Concept. Symptoms. Etiology. Case Studies.
  Assessment and Treatment Modalities.
- II. Cognitive Behavioural Therapy (CBT) Introduction: Background of CBT. Overview of CBT model of etiology and maintenance of psychological disorders. Applications of CBT and. CBT case formulation. Principles of clinical interviewing according to CBT. CBT and REBT. Limitations of CBT.
- III. Cognitive and Behavioural Therapeutic Theories: Behavioural Theory of Depression, Cognitive Theory. Behavioural Theory of Anxiety. The cognitive Triad: Negative automatic thinking, negative self-schemas and Errors in Logic or Cognitive Distortions.
- IV. Phases of CBT: Structure in Therapy. Assumptions. Functional Analysis. Steps in CBT.
  Treatment Planning. Course of Treatment, Integrating Cultural Considerations.
  - V. CBT Tools and Techniques: Automatic Thoughts, Intermediate and Core Beliefs. Cognitive Restructuring. Relaxation Techniques, Exposure Therapy. Journaling and Thought Records. Homework. Activity Scheduling. Behavioural Activation. Behavioural Experiments. Role playing. Guided Discovery. Successive Approximation.

#### REFERENCES

Beck, J.S. (2011). Cognitive Behaviour Therapy: Basics and Beyond. New York: Guilford Press.

Becker, C. B., Zayfert, C. (2006). Cognitive-Behavioural Therapy for PTSD: A Case Formulation Approach. United States: Guilford Publications.

Dobson, K. S. (2010). Handbook of Cognitive-Behavioural Therapies New York: Guilford.

Dugas, M. J., & Robichaud, M. (2007). Cognitive-Behavioural Treatment for Generalized Anxiety Disorder. New York: Routledge

- Fairburn, C. (2008). Cognitive Behaviour Therapy and Eating Disorders. New York: Guilford
- Lara J. Farrell, Thomas H. Ollendick, Peter Muris. (2019). Innovations in CBT for Childhood Anxiety ,OCD ,and PTSD :Improving Access and Outcomes. United Kingdom: Cambridge University Press.
- Leahy, R. (2003). Cognitive Therapy Techniques. New-York: Guilford
- National Collaborating Centre for Mental Health (NCCMH). (2005). Post-traumatic Stress Disorder: The Management of PTSD in Adults and Children in Primary and Secondary Care. London and Leicester: Gaskell and BPS
- Perrin, S., Smith, P., Clark, D. M., Yule, W. (2014). Post-Traumatic Stress Disorder: Cognitive Therapy with Children and Young People. United Kingdom: Taylor & Francis.
- Porter, S. (2018). Treating PTSD: A Compassion-Focused CBT Approach. United States: Taylor & Francis.
- Raja, S. (2012). Overcoming Trauma and PTSD: A Workbook Integrating Skills from ACT, DBT, and CBT. United Kingdom: New Harbinger Publications.
- Roemer, L., & Orsillo, S. M. (2009). Mindfulness & Acceptance-Based Behavioural Therapies in Practice. New York: Cuilford
- Taylor, S. (2017). Clinician's Guide to PTSD, Second Edition: A Cognitive-Behavioural Approach. United States: Guilford Publications. Ford, J. D. (2009). Posttraumatic Stress Disorder: Scientific and Professional Dimensions. Netherlands: Elsevier Science.
- Wells, A. (2009). Metacognitive Therapy for Anxiety and Depression. New York: Guilford.
- Zayfert, C., Becker, C. B. (2020). Cognitive-Behavioural Therapy for PTSD, Second Edition: A Case Formulation Approach. United Kingdom: Guilford Publications.

## 4.3.A. POST-TRAUMATIC STRESS DISORDER (PTSD) AND THERAPY WITH CHILDREN

- **CO 1:** Explain why childhood development is crucial to the mental health of children
- **CO 2:** Understand the various child psychiatric disorders
- **CO 3:** Apply play therapy techniques in treating PTSD
- I. Theories and Processes of Child Development: Theories- Freud, Erickson, Piaget, Vygotsky, Kohlberg, Bowlby. Stages of Child Development- Prenatal period, Infancy,

- Babyhood, Early childhood, Late childhood, Adolescence. Developmental Millstones, Developmental Tasks and Hazards.
- II. Child Psychiatric Information: Issues in Classification. Aetiology. Disorders: Adjust mental Reactions. Disorders of Biological Functions. Psychophysiological disorders. Anxiety Disorders. Childhood Psychoses. Mental Retardation. Learning Disabilities. Disorders of Language Development. Hyperkinesis and Attention Deficiencies. Habit Disorders. Organic Brain Syndromes. Physical Disability. Normal and Pathological Behaviour in Adolescence. Treatment.
- III. PTSD in Children and Adolescents: PTSD. Symptoms in Children. Myths and misconceptions about Trauma in Children. Unresolved Trauma and Impact of PTSD- Long and Short-Term. Neurobiological aspects in PTSD. Risk Factors. Outcome. Diagnosis. Different Treatment Modalities.
- IV. **Play Therapy:** Concept, History and Present. Types of Play and Play Therapy. Basic Requirements to Practice Play Therapy. The therapeutic environment for Play Therapy. Phases of play therapy. The Play Interview. Tools and Techniques.
- V. **Techniques and Tools in Play Therapy:** Use of Houses, Dolls, Puppets, Blocks, Ball, Mud and Clay and other Toys. Telephone, Costume Play. Role playing and Story-telling. Creativity and Imagination. Use of Food. Combining Play and Art- Finger Paints, Squiggle-Drawing Game, Colouring. Music, Singing and Dancing. Board Games, Video Games and High-tech Play Therapy.

## REFERENCES

- Boswell, J. N., Leggett, E. S. (2016). Directive Play Therapy: Theories and Techniques. United States: Springer Publishing Company.
- Butterworth, G. (2014). Principles of Developmental Psychology: An Introduction. United Kingdom: Taylor & Francis.
- Charles E. Schaefer, Donna M. Cangelosi. 2002. Play Therapy Techniques. United States: Jason Aronson, Incorporated.
- Chess, S., Hassibi, M. (2012). Principles and Practice of Child Psychiatry. Germany: Springer US.
- Danny Brom, Juliet M. Vogel, Ruth Pat-Horenczyk. (2014). Helping Children Cope with Trauma: Individual, Family and Community Perspectives. United Kingdom: Taylor & Francis.
- Goodyear-Brown, P. (2019). Trauma and Play Therapy: Helping Children Heal. United States: Taylor & Francis.

- Hurlock, E. B. (2001). Developmental Psychology. India: McGraw-Hill Education.
- Jolene Philo. 2015. Does my child have PTSD? -What to Do When Your Child Is hurting from the inside out
- Joy Hasler, Anthea Hendry(Eds.). (2017). Creative Therapies for Complex Trauma: Helping Children and Families in Foster Care, Kinship Care Or Adoption. United Kingdom: Jessica Kingsley Publishers.
- Mitchell, P., Ziegler, F. (2013). Fundamentals of Developmental Psychology. United Kingdom: Psychology Press.
- Monahon, C. (1993). Children and Trauma: A Guide for Parents and Professionals. United Kingdom: Wiley.
- Spencer Eth. (2008). PTSD in Children and Adolescents. United States: American Psychiatric Publishing.

## 4.4.A. FIRST-AID FOR DISASTERS

- **CO 1:** Understand the concept of First-Aid during disasters
- **CO 2:** Evaluate situations where first-aid is required.
- **CO 3:** Become competent in basic first-aid.
- I. Introduction to First-Aid: Concept. Aims of first-aid. Significance. Types and Levels.
   Principles of first-aid. Emergency Medical Responder and Roles.
- II. First-Aid Assessment and Supplies: Recognising Emergencies. Assessing the situation. Make independent decisions. Disaster Kit. Home First Aid Kit, Travel First Aid Kit. Organizing Shelter. Check-lists. Safety Tools. DRAB and ABCD of first-aid.
- III. Disaster specific safety guidelines: Avalanches, Landslides and Mud-flow. Earthquakes, Fires, Floods, Hazardous Materials. Epidemics. Others. Life-stock safety and Management during disasters.
- IV. **Emergencies and What to do:** The ABC Bites and Stings. Breathing. Bleeding. Fractures. Burns. Choking. Cold and Heat related illnesses. Convulsions and Seizures. Cardiac Problems. Dizziness and Fainting. Eye and Ear injuries. Head, neck and spine injuries. Infectious diseases. Poison. Shock. Stroke and Tooth injuries. Drowning, Dizziness and Fainting.
- V. **Tools and Techniques for First Aid:** Concept of Basic Life Support. Bandaging, Slings and Binders. Checking Pulse. Cardiopulmonary resuscitation (CPR). Automated External Defibrillator (AED). Ventilation. Clearing Air-way obstruction. Using the Fire-extinguisher.

#### REFERENCES

American Academy of Orthopaedic Surgeons (AAOS), American College of Emergency Physicians (ACEP), Alton L. Thygerson. (2011). First Aid, CPR, and AED Essentials. United States: Jones & Bartlett Learning.

American Red Cross. (2008). A Family Guide to First Aid and Emergency Preparedness. United States: Staywell.

Bowman, W. D., Backer, H. D., Paton, B. C. (2005). Wilderness First Aid: Emergency Care for Remote Locations. United States: Jones and Bartlett Publishers.

- Bradley, A. T. (2011). The Disaster Preparedness Handbook: A Guide for Families. United States: Skyhorse Publishing.
- Imel, J. S. (2020). Urban and Disaster Emergency First Aid Made Easy. (n.p.): Udtwfa, LLC.
- Jefferson's County Sheriff's Office. (2018). Jefferson County Family emergency Preparedness Handbook. Oregon: Jefferson's County Sheriff's Office. Retrieved from: https://www.jeffco.net/sites/default/files/fileattachments/public\_safety/page/5629/preparedness\_handbook.pdf
- Kline, C., Brouhard, R. (2014). Disaster Preparedness: Ready Your Family and Home—Before Disaster Strikes. United Kingdom: DK Publishing.
- Liebsch, J., Liebsch, B. (2006). It's a Disaster! ... and what are You Gonna Do about It? A Disaster Preparedness, Prevention & Basic First Aid Manual. United States: Fedhealth.
- Sawyer, J., Huertas, G. (2018). Animal Management and Welfare in Natural Disasters. United Kingdom: Taylor & Francis.
- Staywell. (2012). Responding to Emergencies: Comprehensive First Aid/ CPR/ AED. United States: American National Red Cross.

#### SPECIALIZATION B: TECHNOLOGIES FOR DISASTER MANAGEMENT

## 4.2. B. TECHNOLOGY AND STANDARDS IN HUMANITARIAN AID, RELIEF AND REHABILITATION

- CO 1: Familiarizing the concept of technology driven humanitarian logistics
- CO 2: Apply various principles and standards of disaster relief operations
- CO 3: Integrate theory and field work experience in humanitarian supply chain
- I. Humanitarian Assistance and Disaster Relief: The concept of humanitarian aid, origin and development of humanitarian aid, humanitarian principles, humanitarian programme cycle, delivery of humanitarian aid, people in aid and aid workers, basics of supply chain management, characteristics of the humanitarian supply chain, key building slabs of humanitarian logistics human resources, knowledge management, information management, coordination, logistics,

financial resources, and community, last mile distribution in humanitarian relief, field operations for disaster assessment and response, initiatives for global standards in humanitarian assistance

II. **Technology and humanitarian aid:** Digital humanitarian networking, crowdsourcing maps, use of social media in humanitarian logistics, use of artificial intelligence, innovations in humanitarian assistance, crisis mapping with geospatial information.

III. Humanitarian standards and benchmarks: The Sphere philosophy, the humanitarian charter, protection principles, core standards, Minimum Standards - Water Supply, Sanitation and Hygiene Promotion, Food security and nutrition, Minimum standards in shelter settlement and non-food items, Minimum standards in health action, HAP services and activities, HAP benchmarks, national and state humanitarian standards of minimum relief

IV. **The Code of Conduct in humanitarian sector:** Principles of conduct for the international red cross and red crescent movement and NGOs in Disaster Response Programmes, recommendations to the governments of disaster affected countries, Recommendations to inter-governmental organizations

V. Technology driven emergency operation management: Introduction, nature and scope of operation management, Current issues facing operation management, disaster Relief Logistics, concept of digital humanitarianism, leveraging UAVs for emergency operation management, humanitarian logistics software, Helios On-Demand - Tactical Visibility for the Humanitarian Supply Chain, Web-based humanitarian logistics, LOGISTIX, The Disaster Management Information System (DMIS).

#### **REFERENCES**

Agarwal. D.K. 2008. Text Book of Logistics and Supply Chain Management. McMillan India Pvt Ltd.

EPRS (2019), Technological innovation for humanitarian aid and assistance, study Panel for the Future of Science and Technology, European Parliamentary Research Service

Humanitarian Charter and Minimum Standards in Humanitarian Assistance, Sphere Project, 2011.

Humanitarian Charter and Minimum Standards in Humanitarian Assistance, Sphere Project, 2018.

Krajeswki & Ritzman. "Operation Management Strategy & Analysis", Prentice Hall of India.

Krajeswki & Ritzman. "Operation Management Strategy & Analysis", Prentice Hall of India.

Managing Humanitarian Logistics, B.S.Sahay, Sumeet Gupta, Vinod Chandra Menon editors, Springer, 2016.

Rolando T and Luk V W (2009), humanitarian logistics, Palgrave Macmillan publishers

Sahay B.S, Sumeet G and Vinod C M- Editors (2016), Managing Humanitarian Logistics, Springer

Technology For Humanitarian Action (International Humanitarian Affairs), Kevin M. Cahill M.D. (Editor), Fordham University Press, 2014.

The 2010 HAP Standardin Accountability and Quality Management available at https://reliefweb.int/sites/reliefweb.int/files/resources/260222E062A32EF085257829005BD6FE-Full\_report.pdf

U.S. Agency for International Development (1998), Field Operations Guide for Disaster Assessment and Response

Vasileios Z, Soumia I, Ioannis M-Editors (2013), Humanitarian and Relief Logistics, Springer

Yuri M, Galina M, Miquel A and Antoni G – Editors (2009), Simulation-Based Case Studies in Logistics Education and Applied Research, Springer

## 4.3.B. GEOGRAPHIC INFORMATION SYSTEM (GIS) AND GLOBAL POSITIONING SYSTEM (GPS) TECHNOLOGIES IN DISASTERS

- **CO 1:** Understand the spatial data and handling of spatial and non-spatial database
- **CO 2:** Describe various digital image processing tools and techniques within spatial analytical framework
- **CO 3:** Apply data analysis in the GIS platform to solve spatial problems
- **I. Processing of Remotely Sensed Images:** Digital image and its characteristics, spectral, spatial, radiometric and temporal resolution, visual interpretation vs digital analysis, image data storage and retrieval, image processing systems, data formats of a digital image, pre-processing, image enhancement and transformation, Pre-processing of satellite image- definition, Interpolation methods linear and nor linear transformation for geometric corrections, principal component analysis, digital image interpretation and analysis: image rectification and restoration, geometric and radiometric correction, noise removal, contrast manipulation, spatial filtering, edge enhancement, ground truthing and accuracy assessment, ILWIS and SAGA software
- **II. Fundamentals of Visual Image Interpretation:** Role of image interpreter, elements of image interpretation-shape, size, pattern, tone, texture, shadows, association, image interpretation keys, image preparation and viewing, land cover classification system for use with remote sensor data, Types of vegetation indices-NDVI

- **III. Image Classification**: Supervised classification, minimum distance to mean classifier, parallelepiped classifier, Gaussian maximum likelihood classifier, unsupervised classification, hybrid classification, post classification smoothing, object-oriented classification, classification accuracy assessment, selection of an appropriate classification method
- **IV. GIS Data Base Creation:** Methods of raster and vector data input, capturing attribute data and metadata, metadata, georeferencing, geocoding, geotagging, spatial data standards, topological models, linking non-spatial data with spatial data, GIS data conversion from secondary sources, raster to vector conversion, coordinate and projection conversion, data integration, components of data quality, detecting, editing and removal of errors
- **V. Basic GIS Analysis and Outputs:** Spatial analysis and elements, vector analysis- Methods of analysis for points, measurement of distance, measurement of area, buffer operation, overlay, reclassification, query, raster analysis, local operations, focal operations, zonal operations, global operations, proximity analysis, overlay analysis, Digital Elevation Model DEM generation, change analysis, map composition

#### **REFERENCES**

- Borra, S, Thanki, Rohit M, Day and Nilanjan (2019), Satellite Image Analysis: Clustering and Classification, Springer
- Burrough, Peter A. and Rachael McDonnell, (1998). 'Principles of Geographical Information Systems' Oxford University Press, New York.
- C.P. Lo and Albert K.W. Yeung (2006). "Concepts and Techniques of Geographic Information Systems" Prentice Hall of India, New Delhi.
- Committee on Planning for Catastrophe (2007). Successful Response Starts with a Map: Improving Geospatial Support for Disaster Management, National Academies Press.
- Kang-tsung Chang, (2007). 'Introduction to Geographic Information Systems' Tata McGraw Hill, New Delhi.
- Leica. A. (2003). GPS Satellite Surveying, John Wiley & Sons, New York
- Lillesand T. M., Kiefer R. W. and Chipman J. W. 2008. Remote Sensing and Image Interpretation (Sixth Edition). John Wiley & Sons, USA
- Longley, P., Goodchild, M., Maguire, D. & Rhind, D. (2005). Geographic Information Systems and Science. John Wiley & Sons, Ltd, England, UK

Magwire, D. J., Goodchild, M.F. and Rhind, D. M. (2005). Geographical Information Systems: Principles and Applications, Longman Group, U.K.

N.K. Agrawal (2004). Essentials of GPS, Spatial Network Pvt. Ltd.

Tambassi, Timothy Ed, (2019), The Philosophy of GIS, Springer

#### 4.4.B. GEO-INFORMATICS AND APPLICATIONS IN DISASTERS

**CO 1:** Understand the basics of geoinformatics and its applications multi phases of disaster management

**CO 2:** Analyse multi hazard vulnerability reduction by using geoinformatics

**CO 3:** Apply models of geoinformatics applications in diverse natural, environmental and societal problems and challenges

**I.** Geoinformatics in disaster mitigation: Hazard zonation maps and developmental planning, data requirements for floods, droughts, earthquakes, cyclone and landslide hazards, Global, national and state mapping agencies and their authorized hazard maps, natural hazards map - FM global, global earthquake maps, the GAR global risk atlas, ITIC global and regional hazard maps, USGS foreign hazard maps, GDACS global hazard maps, NOAA natural hazards viewer, aspects multi hazard risk assessment using GIS, landslide hazard vulnerability assessment map preparation, Hazards maps of Kerala,

**II. Geoinformatics in preparedness phase:** Use of base maps in disaster preparedness planning, The Forest Management Information System (FMIS), relief web, identification and mapping of emergency support functions, disaster management decision support centre at NRSC, national database for emergency management

**III. Geoinformatics in response phase:** The United Nations platform for Space-based Information for Disaster Management and Emergency Response (UN-SPIDER), real-time monitoring of disasters examples from NASA near real-time data and imagery, optimal route model for effective evacuation, Geo-informatics - disaster Response and emergency operation, Space technology application for Wenchuan earthquake relief.

**IV. Geoinformatics in disaster recovery:** Geospatial approaches to damage assessment: the example of Haiti earthquake, geoinformatics for effective disaster recovery cases studies of Kerala floods-2018 and Kavalappara landslide-2019 managing spatial information and decision support systems

V. Applied Geoinformatics for Society and Environment: GIS as a social technology, selection of disposal sites for industrial and municipal wastes, geoinformatics in natural resources studies and management, GIS, RS for soil erosion mapping, environmental sensitivity index map, coastal vulnerability index, GIS for watershed management, Land Use/Land Cover (LULC) mapping, uses in irrigation, drinking water supply, micro-level planning, public health risk mapping, GIS based pollution monitoring techniques, challenges and possible solutions to the application of geoinformatics in societal and environmental settings, integrating geoinformatics with social work practice, GIS in humanitarian assistance

#### **REFERENCES**

Brian T (2020), Geographic Information Systems (GIS) for Disaster Management, Routledge

Bruzewicz, A. J. (2003), Remote Sensing Imagery for Emergency Management. Pp. 87-97 in S. L. Cutter, D. B. Richardson, and T. J. Wilbanks (eds.), The Geographical Dimensions of Terrorism. New York: Routledge.

Campagna M (2006), GIS for sustainable development, Taylor & Francis

Committee on Planning for Catastrophe (2007), Successful Response Starts with a Map: Improving Geospatial Support for Disaster Management A Blueprint for Improving Geospatial Data, Tools, and Infrastructure, National Research Council

Darius B and Jennifer S- editors (2005), GIS for Coastal Zone Management, CRC Press.

Juliana AM and Sara M-Editors, (2013), Geospatial Analysis of Environmental Health: 4 (Geotechnologies and the Environment), Springer

Kelmelis, J. A., L. Schwartz, C. Christian, M. Crawford, and D. Kingn (2006), Use of Geographic Information in Response to the Sumatra-Andaman Earthquake and Indian Ocean Tsunami of December 26, 2004. Photogrammetric Engineering and Remote Sensing 72(8):862-876.

Kolios, S., Vorobev, A.V., Vorobeva, G.R., Stylios, C. (2107), GIS and Environmental Monitoring, Springer

Sreeja S. N (2012), Training Module Geoinformatics Applications in Disaster Management, National Institute of Disaster Management, New Delhi – 110 002, Pages 214.

Wang F and Luo W (2004) Assessing spatial and no spatial factors for healthcare access: towards an integrated approach to defining health professional shortage areas. Health & Place11: 131-146

## 9. FIELD WORK CURRICULUM

#### 9.1. Overview

Proposed MSW DM Fieldwork comes under 7 segments: -

- 1) Bridge Course + Exposure Visits
- 2) Concurrent Fieldwork
- 3) Block Placement
- 4) Specialized Agency Training
- 5) Addon Certificate Courses
- 6) Walk with Experts
- 7) Research Projects
- 8) Dissertation
- 9) Disaster Drills

#### 9.2. Team of Advisors to MSW DM Fieldwork

Team of Advisors have to be the pillars of MSW DM Fieldwork. The Advisor Team have to Plan, Coordinate, Support, Monitor and Evaluate the entire Fieldwork activity.

- 1) HoD (MSW DM)
- 2) Teaching Faculty in Charge of MSW DM Fieldwork Secretary
- 3) Asst Prof MSW DM Joint Secretary
- 4) Advisor from SDMA/NDMA
- 5) Advisor from Police (L&O, Training College)
- 6) Advisor from Fire Force
- 7) Advisor from Health Department (Physical Health DMO, Mental Health DMHP, Veterinary)
- 8) Advisor from Revenue Dept/ District Collector Office (DDMA)
- 9) Advisor from LSGD (Local Self Government Department)
- 10) Advisor from Military / Para Military including / NDRF (Serving or retired)
- 11) Advisor from credible NGO/DM Institute working in DM
- 12) Advisor from State Institute of Land and Disaster Management/ NIDM or Scientists
- 13) Advisor from Metrological Department
- 14) Prominent person in the field of Disaster Management (International Agency UNEP etc)
- 15) Representative from Volunteer Association (Sannadha Sena, Collectors Volunteer Group)
- 16) Advisor from Media (Print or Visual)

- 17) Structural Engineer / Architect in DM Field
- 18) Agriculturist / Industrialist / IT / Education / Social Justice Dept
- 19) Student Representative from MSW DM

## Responsibilities of Fieldwork Advisor Team

- Plan & Formulate Fieldwork curriculum for MSW DM
- Ground support for conducting fieldwork in respective area
- Liaison with concerned department for conducting MSW DM Fieldwork.
- Timely Monitoring and Review of the Field Work
- Conduct Fieldwork evaluation/viva as per course guideline
- Update fieldwork practicum as per the need of the hour
- Adopt innovative and best practice in MSW DM Fieldwork to equip students for future opportunities

## 9.3. Bridge Course + Exposure Visit – 1 Month

Equip the MSW DM Students for the entire Course under Cognitive, Affective and Psychomotor level (Theory + Practical)

- 3 Days Theory + 3 Days Exposure Visits = 6 Days in a Week
- Each day Theory: 1 or 2 Subject Introduction = So Total 3 to 6 Subject Introduction in a week
- Remaining 3 Days in week = Exposure visits or activities which related to subject taught in that week

## 9.4. Concurrent Field Work (2 days / week)

## **Objectives** (1st year Concurrent Fieldwork)

- Practice Basic Method of Social Work under assigned LSG
- Learn Governance and functioning of DDMA, LSGD DM, SDMA, NDMA
- Understand and Involve in Local Disaster Management Activities
- Understand and Support the Implementation of SOPs of DDMA, SDMA, NDMA
   Plan.
- Conducts activities based on MSW DM Curriculum (Projects, Assignments, Research)
- Study best practices and challenges on current DM Plan of LSG or DDMA.
- Learn and Understand the legislation (Plan for moot court and Student Parliament)

- Process Documentation
- Understand 'One Health'

## **Objectives** (2<sup>nd</sup> year Concurrent Fieldwork)

- Practice all methods of Social Work
- Prepare a DM Plan for assigned LSG
- Conduct Mock Drill in LSG
- Capacity building in the community
- Possibilities of Research and PRA
- Prepare Plan for School Safety, Mental Health or any MSW DM specialized area.
- Information, Knowledge Management System (IKMS) for Disaster Management
- Prepare a Video/Short Film in consultation with Media advisor.
- Prepare Business Model for Social Entrepreneurship

### **Concurrent field work sites**

- Posted as District Collectors Inters under District Disaster Management Authority (DDMA).
- Start with DDMA Orientation Programme in collaboration with SDMA.
- Inters can be posted under Local Self Government
- Proposed Concurrent fieldwork will help the learner to integrate theory to practice and gain hands-on expertise in DM field.

## 9.5. Fieldwork with Specialized Agencies (With Certificate)

- Conduct 1-week quarterly training with the specialized agencies under DM
- It will help the learner to understand the procedures and SOPs of Multi-Discipline and learn how to blend with them and work together during disaster.
- 1) SDMA/NDMA
- 2) Ministry of Home Affairs (Police Dept / Fire force Dept)
- 3) Health Dept (Physical, Mental Health, Veterinary) "One Health"
- 4) Metrological Dept or DM Forecast agencies
- 5) Social Work Agency / Institute in DM
- 6) NDRF / Military/Paramilitary
- 7) Structural Engineering / Architect related to Disaster Management
- 8) Mass Media and IT related with DM

#### 9.6.Addon Certificate Courses

Should be completed during the MSW DM Course.

- These certificate courses will help the students to meet global standards and enhance employability.
- Addon courses are to be learn along with the course and the time taken for addon courses can be calculated under field work time.
- Add on courses should be Short term courses and learner can choose.
- Update the addon courses as per advisor team and student recommendation.

## **Proposed Courses**

- Basic Life Support (BLS) from American Heart Association (Offline Course)
- Psychological First Aid (Online Course by Coursera)
- Community based Disaster Management (from LES)

#### 9.7. Block Placement

- One-month block placement should be in a Disaster affected area (recent) Or with ongoing Disaster to learn the reality of disaster and consequences.
- Block Placement should focus on problem identification and intervention to solve problem.
- Block placement should be coordinated between the college level field work team of advisors with NDMA, SDMA, NGOs in DM, Govt or International Agencies.
  - Eg Flood Affected areas in Kerala,
  - Amphan, Nisarga Cyclone in North Kerala
  - Severe COVID affected areas
  - Vishakhapatnam Gas Tragedy

## 9.8. Walk with Experts

MSW DM Dept in Consultation with team of Advisors should arrange Interaction with Experts on a monthly basis to discuss on current trends, best practices, experience, job opportunities.

## 9.9. Collaborate with Multi-Disciplinary Students (Peer Learning)

As Disaster Management is a Multi-Disciplinary Subject. Students of MSW DM should collaborate with students of other disciplines.

Check the possibility of working together during Concurrent, Block Placement likewise

Collab with multi-disciplinary students helps in peer learning and able the incorporate best practices and different methods in action.

- Collab with Medical Students
- Collab with Structural Engineering Students
- Journalism Students
- Geologist and other DM Specialist
- Architecture Students
- Agriculture, Bio-Technology
- Psychology / Psychiatry
- Sociology / Economics

## 9.10. Research and Development (Education>Research>Action)

The Research wing under MSW DM course should be focus on Interventions and Sustainable solution to the problem under Disaster Management.

Research should look for

- Innovative Solution (Social Entrepreneurship & Start Up)
- Link Science>Academia>Government Policy
- Create and Implement policies that build on best available knowledge.
- Policy-Science gap must be filled with Research that can be translated to action.
- Address problem from the field and calibrate solution with research.
- "Link Locally Act Globally

## Sem-wise Fieldwork Proposal for MSW DM, LCSS

- Contingency Fieldwork plan to meet requirement rise out of upcoming Disaster Management Situations
- All 4 Sem Concurrent fieldwork should in same Local Self Government Jurisdiction

## **QUESTION PAPER MODEL**

### MSW DISASTER MANAGEMENT

#### 1.1. INTRODUCTION TO SOCIAL WORK

Time: 3 Hours Max. Marks: 75

#### PART A

Answer **all** questions in not more than 50 words. Each question carries 2 marks.

- 1. Define Social Work.
- 2. Social Service
- 3. Names two Social Reformers of Kerala
- 4. Social Welfare
- 5. Communication
- 6. Liberalism
- 7. Non-Judgemental Attitude
- 8. Code of Ethics
- 9. CSWB
- 10. Social Work Values

(2x10=20 Marks)

#### **PART B**

Answer any **five** of the following in not more than 300 words. Each question carries 5 marks.

- 11. Spell out the need for Social Security measures in India.
- 12. Distinguish between Social Service and Social Welfare.
- 13. Highlight the relevance of moral and religious values in framing the social work values.
- 14. Narrate the importance of Field Work in Social Work Education.
- 15. Describe the need for Ethical standards in Social Work.
- 16. Discuss the components of a profession and its applicability to Social Work.
- 17. Discuss the importance of self-awareness and conscious use of self in social work practice.
- 18. Write short note on non-exertive attitude. 18. Elaborate the importance of Correctional Social Work.

(5x5=25 Marks)

#### **PART C**

Answer any **three** of the following in not more than 850 words. Each question carries 10 marks.

- 19. Write an essay on Basic and Ancillary methods of Social Work.
- 20. Critically analyse the various social reform movements undertaken by the Indian Social Reformers.
- 21. Discuss the historical evolution of the social work profession in India and discuss the current trends.
- 22. Discuss the Code of Ethics and its necessity to the practice of social work.
- 23. Discuss Social Work as a profession and the challenges posed.

(3x10=30 Marks)