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Operational Guidelines for Convergence of Various Programmes with Integrated Watershed Management Programme, 2015

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**OPERATIONAL GUIDELINES
FOR
CONVERGENCE OF VARIOUS
PROGRAMMES WITH
INTEGRATED WATERSHED
MANAGEMENT PROGRAMME
(IWMP)**



**Department of Land Resources
Ministry of Rural Development, Government of India
NEW DELHI**

2015

OPERATIONAL GUIDELINES FOR CONVERGENCE OF PROGRAMMES UNDER MINISTRIES OF RURAL DEVELOPMENT, PANCHAYATI RAJ, ENVIRONMENT AND FORESTS, WATER RESOURCES, AGRICULTURE AND ALLIED SECTORS AND OTHER STATE PROGRAMMES WITH INTEGRATED WATERSHED MANAGEMENT PROGRAMME (IWMP)

I. BACKGROUND

1.1 Convergence defined

Convergence is the process that results in the achievement of common objectives through value addition, targeted and efficient use of financial and human resources. Coordinated planning and service delivery ensures timely inputs from multiple sources, simultaneously avoiding duplication and redundancies. The planning process drawing in from mutually agreed programmes, underlines clarity regarding targets, timeframes, shared responsibilities and monitoring parameters. Specific convergence initiatives could be of a complementary or supplementary nature, aimed at either more comprehensive treatment, adding productive value to assets created, ensuring sustainability or up-scaling successful initiatives.

1.2 Why Convergence?

Convergence focuses on synergies required to move towards a more integrated delivery approach, using the comparative strengths of different partners to address the specific challenges of rainfed production and livelihood systems. Given that the IWMP is now being implemented through a cluster approach and will integrate broader hydrological concerns as the basis for planning, the potential for consolidation of impacts increases manifold. The watershed approach provides a dynamic framework that can benefit from the activities undertaken through certain programmes while providing a platform to other programmes that can use the potential created through the projects, to realize incremental outcomes. Certain other linkages could ensure community empowerment through capacity building and skills development and overall sustainability of impacts for both programmes. To elucidate:

1.2.1 Elucidation-I: Comprehensive treatment – Natural Resources Management (NRM) works

- Mahatma Gandhi National Rural Employment Guarantee Act(MGNREGA), Rural Development (RD) – for land treatment especially earthworks such as farm and contour bunds, clearing drainage lines, preparing pits for plantation
- Repair, Renovation & Restoration(RR&R), Water Resources (WR) – restore and augment storage capacities of water bodies
- Forest Department (FD) Programme – treatment of ridge areas in the upper reaches – especially in the Reserve Forest areas, afforestation through the Green India Mission in common lands, farm bunds, etc.

These broadly align with the objectives addressed through the NRM works component of IWMP.

1.2.2 Elucidation-II :Programmes/ Initiatives that can benefit from potential created (indicative)

- Rural Drinking Water Supply (RD) – Improved water availability from water conservation measures
- Agriculture - Different Programmes including National Mission for Sustainable Agriculture (NMSA), National Food Security Mission(NFSM), National Horticulture Mission(NHM), Rashtriya Krishi Vikas Yojana (RKVY) etc. – Improved productivity potential through assured water availability, also addresses climate change concerns from more frequent droughts, reduction in soil degradation due to erosion.
- Animal Husbandry – Improved fodder availability through treatment of commons, agricultural residues and third fodder crop. Self Help Group(SHG) and SHG federations can take up dairying as in Income generating option.

- Fisheries—Perennial water bodies created through IWMP ensure fisheries as a livelihood option.
- National Rural Livelihood Mission (NRLM) – SHGs are already created as an integral part of the livelihoods component of IWMP.
- Credit Support – Better outlook for loan repayments as farmers are less susceptible to weather fluctuations and women's SHGs have reached a certain level of maturity.
- Public Private Partnership (PPP) – assured farm produce provides an impetus for value addition and marketing. Farmer's groups and Commodity Interest Groups (CIGs) already formed.

These broadly align with the objectives addressed through the Production Systems and Livelihood Components under IWMP.

1.2.3 Integrated Development & Wider Impact

Given the magnitude of the investments envisaged, it becomes imperative to ensure Convergence of various area development and livelihood improvement programmes with IWMP. This would bring in integrated development in a given watershed, enhance income of the watershed communities and provide wider impacts across the sectors. Department of Land Resources (DoLR) is institutionalizing a benchmarking initiative that would emphasize on accountability for impacts of various watershed measures. While supporting IWMP directly, it will also ensure accountability of results from convergence initiatives. To achieve this, convergence becomes a necessary instrument that is internalized right from the planning to the consolidation phase through an inbuilt institutional mechanism at various levels. Programme delivery would need to be organized and reoriented accordingly, enhancing institutional capacities of the agencies and communities involved.

1.2.4 Critical levels for Convergence

State specific convergence policies and strategies would need to be formulated in consultation with the concerned line departments. At the national level, DoLR will hold discussions with concerned Ministries to assess and identify broader convergence potentials. At the State level, the State Level Nodal Agencies (SLNAs) should take the initiative to discuss convergence with other State Departments for both, Central and State schemes and issue necessary guidelines and instructions. Given the decentralized planning framework, the critical level for convergence planning should be a district. However, it matters most at the level below the District / Block, at the Watershed cluster level, where actual implementation is envisaged to address common concerns and realize mutual benefits.

1.3 Who should lead the process of convergence?

- 1.3.1 SLNAs should hold initial meetings with the State line Departments & decision makers to explore specific convergence potential and kick start the process. DoLR will initiate dialogue with relevant Central Ministries.
- 1.3.2 Concerned Ministries/Departments may then provide separate guidelines to their State formations on relevance and modalities of Convergence with IWMP. Joint Guidelines issued by Ministry of Rural Development (MORD) as in the case of MGNREGA is one such example.
- 1.3.3 SLNAs in consultation with the other State Line Departments should bring out the State Government instructions in securing co-ordination and convergence of line departments/other implementing agencies at the State, District and Project level. This would enable the Collectors, District Planning Committees (DPCs) or Chief Executive Officer (CEO)/ District Development Officer (DDO) - Zilla Parishad / Panchayat (ZP), as applicable in a State, to take decisions for convergence. This key coordinating authority at the district level has an important decision making role in bringing in convergence at the district level. Functional responsibilities of the line departments need to be clearly defined and included under the convergence process.
- 1.3.4 Watershed Cell Cum Data Centre (WCDC) on the strength of above instructions & in consultation with the concerned authority at the district level would facilitate linkages with relevant programmes of

agriculture, horticulture, animal husbandry, rural development etc. with watershed development projects for enhancement of productivity and livelihoods at the district level. The States would have liberty to fix this district level responsibility as per administrative arrangements in the State.

- 1.3.5 The Convergence Potential and Modalities would need to be clearly spelt out in the Convergence and resultant matrix which would be an integral part of the Detailed Project Report (DPR)
- 1.3.6 Project Implementing Agencies (PIAs) and Watershed Development Teams(WDTs) would facilitate the implementation of important programmes through convergence of other Departments such as MGNREGA, Backward Region Grant Fund (BRGF), NFSM, NHM, Tribal Welfare Schemes, Artificial Ground Water Recharge, Green India etc. in the IWMP areas on priority in collaboration with their field functionaries.

1.4 Possible Departments to converge with IWMP at various levels

The Departments that are potential convergence partners with IWMP include: Rural Development, Panchayati Raj, Water Resources, Minor Irrigation, Ground Water, Drinking Water Supply & Sanitation, Agriculture, Horticulture, Animal Husbandry, Dairy, Fisheries, Agriculture Engineering, Soil and Water Conservation, Environment & Forest, Sericulture, Marketing, Cooperation, Social Welfare, Tribal Development, Adult Education etc.

1.5 Possible Institutions / Organizations to work for Convergence?

Training, research, extension and other facilitating institutions/ organizations that could be considered to promote convergence would include: State Administrative Training Institutes, State Agricultural/ Horticultural/ Veterinary Universities, State Marketing Boards, National Bank for Agriculture & Rural Development (NABARD), Indian Council of Agricultural Research (ICAR) institutes, State Agricultural Management and Training Institute(SAMETIs), Forestry Research and Training Centres, Watershed Training Institutes/Centres, Water & Land Management Institutes(WALMIs), Irrigation Management Training Institutes, National Institute of Rural Development (NIRD), State Institutes of Rural Development(SIRDs), National Institute of Agricultural Extension Management (MANAGE), State level Co-operative Training Institutes, National Remote Sensing Centre(NRSC), State Remote Sensing Agencies, Krishi Vigyan Kendras (KVKs), Farmers Training Centres (FTCs), Training Centres of Input Support Agencies like Indian Farmers Fertilizer Cooperative (IFFCO), Krishak Bharati Cooperative (KRIBHCO), Training Institutes of Banks, etc.

1.6 Existing Planning Instruments/Mechanisms facilitating Convergence

A number of mechanisms are already available through various programmes and schemes to facilitate convergence. Some of these are: (i) Comprehensive District Agriculture Plans (C-DAPs)& State Agriculture Plans (SAPs) of RKVY, (ii) Strategic Research and Extension Plans (SREPs) and Block Action Plans (BAPs) of Agricultural Technology Management Agencies (ATMAs) of State Agriculture Departments,(iii) District Level Potential linked Credit Plans (PLPs) of NABARD, (iv) Micro Level Farming Situation Analysis Reports of KVKs, (v) Detailed Project Reports of IWMP and (vi) Work Plans of Forest Departments. Also, the State Perspective Plans identify specific areas for convergence of IWMP with the line department programmes. There should be a clear focus on capture of priorities to strategize and facilitate convergence process.

II. CONVERGENCE POSSIBILITIES OF SELECTED PROGRAMMES WITH IWMP

RURAL DEVELOPMENT

2.1 Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)

The IWMP has stipulated per hectare cost norms which at times proves inadequate to undertake comprehensive soil and water conservation measures. Convergence would provide opportunities and flexibility to undertake more labour intensive earthworks under MGNREGA, while IWMP resources could fund the permanent

structures. Concerned officials of Mahatma Gandhi National Rural Employment Guarantee Scheme (MNREGS) should actively participate in DPR preparation and ensure that the activities identified are included in the shelf of the works of the concerned Gram Panchayat. Considering the commonality of the objectives, works, target areas and beneficiaries between IWMP & MGNREGS, it would be appropriate to take up MGNREGS works in villages under watershed projects. Activities on the ground would include construction of farm ponds, field bunding, water harvesting structures and plantations. Convergence would further ensure targeted planning on a wider



canvas. What IWMP brings to the table is a more scientific approach to the planning of soil and water conservation works as a whole with specific activities apportioned to MGNREGS and IWMP. Such works can be taken up under MNREGA after exhausting IWMP funds.

Further, convergence with MGNREGS have been detailed in the recently issued MORD circulars No. 11017/17/2008/NREGA(UN), dated 11th August, 2014 (Watershed management works independently under MGNREGS or in convergence with IWMP) & 9th December, 2014 (Advisory on Water Harvesting Structures(WHS) & desilting /repair &renovation of existing structures). These may be referred appropriately by the field agencies for locally relevant convergence in the watersheds.

2.2 Aajeevika-National Rural Livelihood Mission (NRLM)

The National Rural Livelihoods Mission currently under implementation in selected blocks in the country was launched in June, 2011. The Mission aims at creating efficient and effective institutional platforms of the rural poor, enabling them to increase household income through sustainable livelihood enhancements and improved access to financial services. NRLM is complementing rural poor groups with knowledge, information, skills, tools,

finances and collectivization. Wherever feasible, synergies should be explored with watershed projects. As NRLM expands to watershed areas, these groups including women SHGs already created could be involved in skill development initiatives of NRLM. Income generating and livelihood promotion activities of NRLM may be promoted in watersheds and joint training strategies could be taken up accordingly. Also, there is need for promoting more SHGs and Credit and Thrift Group linkages in the watersheds.



PANCHAYATI RAJ

2.3 Backward Region Grant Fund(BRGF)

This scheme provides for Panchayats as institutions for planning and implementation of need based programmes to address the intra district variations. 250 of the most backward districts are targeted for the purpose. The BRGF allows a high degree of flexibility to the community in the choice of activities. These could well include soil and water conservation and other activities that are typically considered under a watershed project. Further, there is scope for involvement of panchayats in local priority settings for watershed management programmes.

DRINKING WATER SUPPLY& SANITATION

2.4 National Rural Drinking Water Supply Programme

The scheme provides for taking up of conservation measures for sustained supply of water through rainwater harvesting and ground water recharge structures. The projects include taking up water conservation and recharge measures for source strengthening for drinking water. The scheme could be taken up in the selected watersheds. WDTs could facilitate in identification of such sites and aligning watershed plans to ensure adequate water availability.

2.5 Swachh Bharat Mission Campaigns may be aligned to the needs of the watershed communities and their involvement.

WATER RESOURCES

2.6 Repair, Renovation and Restoration (RRR) of Water Bodies

This Pilot Scheme for “National Project for Repair, Renovation & Restoration (RRR) of Water Bodies” is directly aligned to the watershed objectives of improving water availability and creating the potential for Agriculture. The objectives of the Scheme are to restore and augment storage capacities of water bodies, and also to recover and extend their lost irrigation potential. The Scheme, as a part of Accelerated Irrigation Benefit Programme (AIBP) has been approved for 26 district projects in 15 States. Water bodies having original irrigation culturable command area up to 2000 hectare or less are covered under the scheme. There is scope for convergence around such bodies if they fall in a given watershed. The WCDC/WDTs may interface with irrigation/minor irrigation department for the purpose. The RRR Scheme further envisages the convergence with IWMP in their guidelines and it is expected to take up those water bodies of which catchment area treatment is completed under IWMP.



2.7 Central Ground Water Board (CGWB)

CGWB monitors ground water levels four times in a year. In addition, there is a bimonthly water level monitoring of selected observation wells by the states too. These activities would need to be dovetailed in the rainfed areas so as to assess the surface and ground water availability in the watersheds. This analysis would facilitate crop diversification and promotion of other livelihood activities there.

AGRICULTURE

2.8 Rashtriya Krishi Vikas Yojana (RKVY)

RKVY is a multi-sectoral programme covering agriculture and allied sectors. This is an important scheme for convergence and many innovative programmes can be promoted in watersheds. It provides flexibility to the States in formulating their development priorities for the state, region and district. The programmes are designed broadly as per the priorities reflected in C-DAPs. SLNAs may develop a system of integration of agriculture, horticulture, animal husbandry, dairy, fisheries, agro-forestry and sericulture programmatic interventions for selected watersheds in districts/regions as per potential and approach the concerned line department for their promotion and implementation in IWMP areas. These interventions could be with or without funding support. Even special projects like land development, minor irrigation, productivity improvements and integrated farming systems that require separate funding not covered under IWMP could be formulated and posed under RKVY.



2.9 National Food Security Mission (NFSM)

Production support for Rice, Wheat, Pulses, Coarse Cereals and Commercial crops (Jute, Cotton and Sugarcane) is extended under this Mission. The scheme provides for field demonstrations on production technologies and inter-cropping, cluster demonstrations to be conducted by the States in collaboration with the ICAR institutes and State Agricultural Universities. The scheme also provides for cropping systems based training support and assistance on High Yielding Varieties (HYV) seed distribution of certified seeds of pulses (arhar, moong, urad, field pea, gram and moth). Pulses and coarse cereals are mostly cultivated in rainfed areas and NFSM would be useful in promoting coarse cereals and pulses in watersheds through training and demonstrations. It calls for linkage between Watershed Development Teams and NFSM District technical teams and joint actions in field programmes targeting specific watersheds having potential for these crops.



2.10 National Mission for Oilseeds and Oil Palms (NMOOP)

Diverse agro-climatic conditions are favourable for promoting cultivation of 7 edible oilseeds (groundnut, rapeseed & mustard, soybean, sunflower, sesame, safflower, niger and 2 non-edible oils (castor and linseed). NMOOP provides assistance on distribution of certified seeds of major oilseed crops, supply of soil amendments, plant protection chemicals and field extension support. Oilseed cultivation covers about 27 million hectares mainly on marginal lands of which 70% are confined to rainfed farming. Oil Palm is highest vegetable oil yielding perennial crop. With quality planting material, irrigation and proper management there is potential to achieve higher yields. The NMOOP supports distribution of oil palm sprouts, drip irrigation system for oil palm, construction of farm ponds and water harvesting structures and bore well for oil palm cultivators. There is scope to expand oil palm cultivation in the coastal states and a few NE States like Assam, Mizoram and Tripura including rainfed areas where water conservation levels have enhanced. Further, common tree borne oilseeds like Karanj, Neem, etc. could be taken up in rainfed. Kharif oilseed crops like ground nut is predominantly grown in rainfed areas, the oil palms is a crop of coastal rainfed and tree borne oilseed like karanj, neem etc are predominantly of rainfed areas. There is scope for promotion of these crops in watersheds having such potential. It requires joint strategies, linkages and interface between Watershed Development Teams and field functionaries of the State Department of Agriculture especially in planning and conducting training programmes, demonstrations and other soil & water conservation interventions under the scheme in watershed areas.



2.11 Integrated Nutrient Management (INM) as a part of NMSA

INM is focused on promoting soil test based balanced and judicious and timely application of chemical fertilizers, bio-fertilizers and locally available organic manures such as farm yard manure, vermi-compost and green manure to maintain soil health and soil productivity. District Soil Testing Laboratories (STLs), Mobile Soil Testing Laboratories and Soil Testing Laboratories of Krishi Vigyan Kendras (KVKs) are available in the public domain. This facility is also provided by Private Input Support providers (mainly seeds, fertilizers and plant protection chemicals) in potential areas. Besides, private and co-operative sugar factories are also extending this support to the farmers in their catchments. Farmers are encouraged to go for Soil Health Cards indicating status of major and micro-nutrients. This is far more important for the farmers in rainfed ecologies for balanced and timely use of fertilizers and for making the best use of available moisture regime and scarce water resources. An assistance for soil improvement (in the form of soil ameliorants, micro-nutrients, vermi-compost, bio-fertilizers, organic inputs etc.) is extended through various Missions such as NFSM, NHM, NMOOP & NMSA. Farmers training and field demonstrations may be organized by the agriculture department and KVK scientists in the selected

watersheds. WDTs may indicate the sites and villages for this purpose as per the potential in a given watershed. KVKs and ATMA members may train farmers, Watershed Committee (WC) members and concerned WDT member for strengthening this activity.

2.12 Integrated Pest Management (IPM) as a part of National Mission on Agricultural Extension & Technology (NMAET)

IPM is an eco-friendly approach which aims at keeping the pest below Economic Threshold Level (ETL) by employing all available pest control methods and techniques such as cultural, mechanical and biological controls. Greater emphasis is laid on use of bio-pesticides and use of pesticides of plant origin such as neem formulations. The use of chemical pesticides is advised as a last resort when the pest population crosses the threshold limits. IPM activities are promoted through Farmers Field Schools (FFSs) wherein farmer to farmer learning is promoted through field observations and real farm situations. The Agriculture Department functionaries and KVK scientists may emphasize IPM approach in the watershed areas through trainings, demonstrations and exposure visits. Farmers Field Schools may also be encouraged in the watershed areas and their capacities built to undertake improved IPM practices. Sub-Mission on Agricultural Mechanization of NMAET provides for plant protection equipment like sprayers. NFSM/NHM has a component for providing plant protection chemicals, bio pesticides, IPM etc. These could be suitably extended to the watershed areas through their field programmes like trainings, demonstrations, fields schools and exposure visits.

HORTICULTURE

2.13 Mission for Integrated Development of Horticulture (MIDH)

National Horticulture Mission (NHM) was launched in 2005-06 as a Centrally Sponsored scheme to promote holistic growth of horticulture sector through area based regionally differentiated strategies. The Scheme has been subsumed as a part of Mission for Integrated Development of Horticulture (MIDH) from 2014-15. The MIDH continues to be Centrally Sponsored Scheme covering fruits, vegetables, root & tuber crops, mushrooms, spices, flowers, aromatic plants, coconut, cashew, cocoa and bamboo. While Government of India (GOI) contribution is 85%, the State's contribution is 15% (except North Eastern States where GOI contribution is 100%). Major interventions operated under the scheme are: Research & Development (R&D) support, Production and productivity improvement, Production and distribution of planting material, Rejuvenation of Senile plantations, Creation of water resources, protected cultivation, Precision farming, Human Resource Development (HRD), Technology Dissemination, Post-Harvest Management, Processing & Value addition, etc. Most of these interventions are applicable to the watershed areas for promotion of horticulture related activities. WDTs may obtain quality planting material (as per potential /requirement) from MIDH credited outlets and seek technological back up from MIDH as per horticultural development needs of watersheds. The

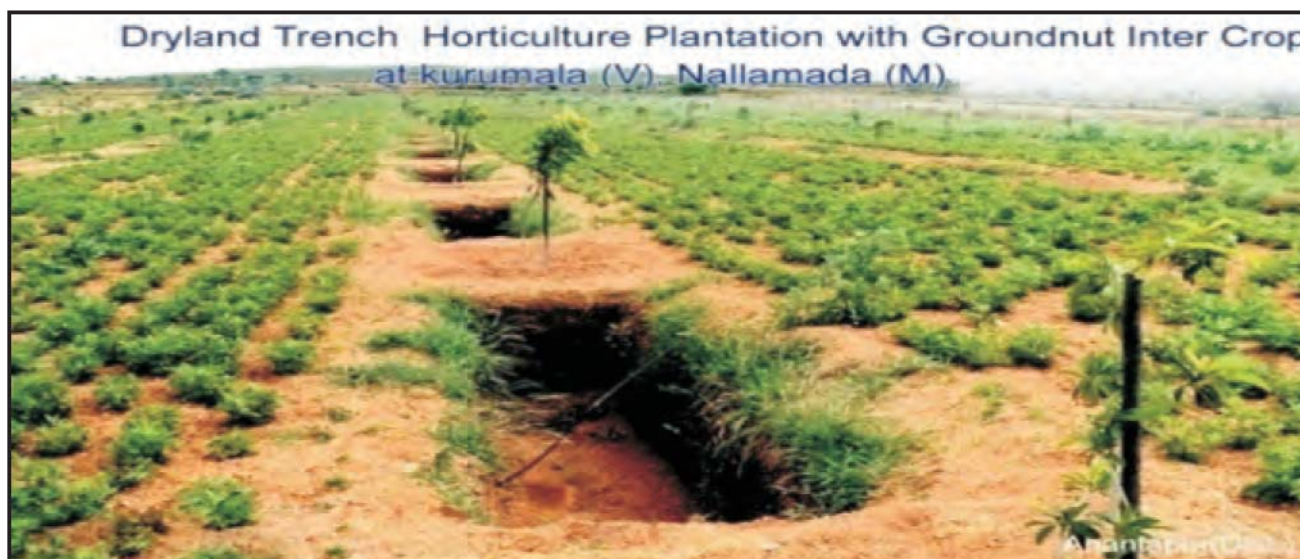


convergence with this sector could be strengthened further by: (i) providing representation to WCDC/WDTs on the District Horticulture Mission, (ii) WDTs and KVKs may interact for development and distribution of quality planting material, (iii) IWMP and MGNREGA may develop farm ponds; conservation structures and polythene lining, and drip system required for horticulture development may come from other programmes such as NMSA. Activities like production of planting material for IWMP areas and pest and disease control of horticultural plantations in watersheds may be proposed for convergence with MIDH.

NATURAL RESOURCES MANAGEMENT AND CLIMATE CHANGE

2.14 National Mission on Sustainable Agriculture(NMSA)

Developed under the National Action Plan for Climate Change (NAPCC), the NMSA aims at bringing in a systems approach to rainfed farming. The major components are Rainfed Area Development Programme (RADP), Soil Health Management, On Farm Water Management and Climate Change pilots. Soil health issues could be addressed jointly by RADP and IWMP in a given watershed. Intensive activities like soil resource mapping, promoting soil testing in the given watershed through static and mobile laboratories, distribution of portable soil testing kits, making the soil fertility maps available at field level, conducting soil health awareness campaigns at the village/Panchayat levels etc. could be undertaken in the watersheds combining the efforts of both public and private facilities. The WDTs and the PIAs would need to orient farmers and field functionaries about soil health concerns. Capacities of field agencies would need to be enhanced through systematically developed training modules.



2.15 Micro Irrigation (MI) as a part of NMSA

NMSA has a component of On Farm Management that focuses on enhancing water use efficiency by promoting efficient on farm water management technologies and equipment. Emphasis is being given on effective harvesting and management of rain water. Assistance is extended for adopting water conservation technologies, efficient delivery and distribution systems. This would include promotion of drip and sprinkler irrigation. These systems would need to be extended around water bodies created or renovated through watershed works with focus on judicious and timely use of available water. Training and MI technology support (installation, maintenance, etc.) may also be provided to the farmers adopting drip/sprinkler practices in watersheds.



2.16 National Initiative for Climate Resilience Agriculture (NICRA)

NICRA is an ICAR initiative that covers: cropping systems, water management, weather-based agro-advisories, risk management and enhanced extension efforts. These climate smart initiatives are implemented through selected KVKs, wherein Village Climate Management Committees are promoted. Learnings from NICRA villages could be captured by watershed teams and up-scaled if found advantageous. These KVKs and WDCs could take a call on mutual advantage. KVKs could be requested to adopt some villages in IWMP watersheds to demonstrate these initiatives.

ANIMAL HUSBANDRY, DAIRY & FISHERIES

2.17 National Dairy Plan (NDP)

NDP is under implementation through National Dairy Development Board (NDDB) with World Bank assistance since 2012 with an objective to meet the projected national demand of 150 million tonnes of milk by 2016-17. The scheme has focused components of increasing productivity of milch animals and providing greater access to the rural milk producers with organized milk processing sector. Also, it has a focus on promoting Dairy Farmer Producing Companies and Dairy Farmer Producer Organizations. These could be taken up in watersheds having such potential. WDCs and District level Milk Unions may collaborate on use of primary milk cooperatives in watershed areas for programme delivery. SHGs, CIGs in a given watershed can be part of this process. Further, SHGs could also be milk collection agents. State Animal Husbandry Department in the project states may provide necessary instructions to their district level formations for convergence of schemes/activities related to livestock development in a given potential watershed.



2.18 Livestock Health and Disease Control Programmes

This is one of the major schemes of the Department of Animal Husbandry. Animal Health Camps could be organized in collaboration with the departmental functionaries in the watershed areas. Watershed development teams may focus on small ruminants and backyard poultry depending on the potential. Para vets/Barefoot vets and Non-Government Organizations (NGOs) trained through the programme, could play an important role in preventive and primary health care of animals. Network of Gopals and Pranibandhus promoted by various States specially in rainfed areas may need to be adequately trained and their capacities built for addressing feed fodder and cattle health care including of small ruminants in given watershed.



2.19 National Fisheries Development Board (NFDB) Programmes

NFDB programmes are available both for inland and marine fishery initiatives. Water availability in perennial surface water bodies may be promoted through watershed programmes and fish seeds in such bodies may come from the Fisheries Department. NFDB's scheme of Aquaculture in Ponds and Tanks could be extended for this purpose. Community participation for water management, fish seed production and auction may be promoted through village level PRIs. Training of fish farmers may be taken up through KVKs/ATMAs and outlets of State Agricultural Universities (SAUs) and ICAR institutes. Further, involvement of the Department of Fisheries is necessary for providing fingerlings to farm ponds with lining developed under watershed programme.



CREDIT AND INSURANCE SUPPORT

2.20 Crop Insurance for Risk Coverage in Rainfed Areas

Small and marginal farmers in rainfed areas face partial or total crop loss due to risks associated with weather fluctuation. While crop diversification and supplemental irrigation measures help in coping with risks to a large extent, rainfed farming would still be vulnerable to longer drought spells. Crop insurance is an important tool for risk mitigation for small and marginal farmers. The principle crop insurance scheme – National Agricultural Insurance Scheme presently covers less than 10% of farmers. Climate risks are often highly spatially correlated and therefore call for expansion of Weather Based Insurance Scheme. Crop insurance as a risk mitigation measure is effective only in combination with risk reduction measures like soil and water conservation, adoption of sustainable practices, inter-cropping and diversification, use of appropriate seed varieties, etc. Hence, rainfed agriculture needs: location specific insurance products for crops and livestock, insurance education of small and marginal farmers and adoption of comprehensive risk reduction agricultural packages. The WDTs may arrange interface between watershed committees and concerned field functionaries of Agriculture Department for educating the farmers on the risks and insurance. Agriculture Department in collaboration with insurance companies may hold such awareness camps in watershed areas.

2.21 National Bank for Agriculture and Rural Development(NABARD)

NABARD has a dedicated district level functionary, District Development Manager (DDM) who could be associated with watershed programmes especially for providing credit support linkages. The much required farming systems- input support and credit linkages equilibrium could be obtained in this manner. WCDCs / WDTs may look into Potential Linked Credit Plans (PLPs) as one of the instruments of convergence. NABARD/ Bank linkages would help in mobilizing credit support for SHGs/entrepreneurs in watershed areas. Further, issues like financial inclusion, sensitization of the bankers, activating priority sector lending, providing credit on lower interest rates to the watershed farmers and linkages with the SHGs would also be undertaken by the Agriculture Department in collaboration with project level watershed functionaries and WCs. DDM could play an important role in this process. Besides credit, the NABARD also supports watershed programmes primarily promoted through NGOs. Successful watershed programmes can be used for exposure visits of the field functionaries of the IWMP and other related departments and farmers.



Farmer's Cooperative paves the way for success of Onion Cultivation in Nuapada



TECHNOLOGY VALIDATION AND DISSEMINATION IN AGRICULTURE & ALLIED AREAS

2.22 Krishi Vigyan Kendras (KVKs) Programme of ICAR

Krishi Vigyan Kendras are constituted as front line extension institutions and activities focus on technology validation and refinement at the local level. In the process, KVKs are involved in technology demonstrations and training of farmers/field extension personnel. Other extension activities taken up by the KVKs include: organizing technology weeks, production of information material and their dissemination, farmer-scientist interactions, Kisan Melas, Mobile Advisory Services and providing technological backstopping to the field programmes of the agriculture and line departments. KVK – IWMP linkages could be improved further by: (i) having Memorandum of Understanding (MOU) based linkages between KVKs & WDC for technology testing and training, (ii) involving KVK Subject Matter Specialists (SMSs) for technology backstopping, (iii) drawing learnings from micro level farming situation reports of KVKs. The process of convergence could be strengthened by having jointly developed training modules as per specific training requirement of a particular watershed and developing joint strategies for dissemination of watershed technologies. Every KVK is headed by the Programme Coordinator who in turn is assisted by six Subject Matter Specialists covering various disciplines such as agronomy, plant protection, soil science, home science, agricultural extension, etc. Most State Agricultural Universities (SAUs) have outreach programmes and field specialists in position in the districts (like Districts Agriculture Technology & Training Centres of Andhra Pradesh University, Extension Agronomist in Maharashtra Universities, District SMSs of Dharwad University, Farm Advisory Services of Punjab Agriculture University, etc). They are involved in dissemination of farm advisories. What really matters is the linkage of these SMSs with the field extension functionaries. There is a strong possibility of collaboration of these SMSs with WDTs in the given watershed.

2.23 Agricultural Technology Management Agency (ATMA) as a part of NMAET

The ATMA concept focuses on extension reforms and programme delivery. There is a broad menu of extension reforms for State and district levels. The extension reforms are centered around training, demonstrations,

exposure visits, farmer empowerment, farmer field schools and field extension activities. Farmer Interest Groups and Commodity Interest Groups that are formed at the field level may converge with User Groups. These could be promoted in watersheds. WCDCs need to be suitably represented on the Governing Board of ATMA to achieve synergy between the watershed and extension interventions. Further synergy could be obtained through: (i) ATMA field programmes are jointly organized in the watersheds by the WDTs and Block Technology Teams of ATMA, (ii) WCDCs and WDTs to look into the Strategic Research and Extension Plans (SREPs) and Block Action Plans (BAPs) of ATMA for convergence modalities, (iii) the Farmer Friends (FFs), Village Extension Workers (VEWs) and SMSs of KVKs and ATMA be oriented on watershed project requirements, and (iv) ATMA/KVK training strategy may be sharply focused on IWMP requirements. The SLNA could train a few faculty members of State Agricultural Management and Extension Training Institutes (SAMETIs) as master trainers. The subject matter areas that would need to be stressed in these model training programmes may include: Watershed Planning & Phasing, Watershed implementation, Watershed & Evaluation (M&E), Application of Remote Sensing (RS) & Geographical Information System (GIS), Sustainability of Watersheds, Convergence of other programmes with IWMP, Benchmarking of Watershed Outputs, Hydrological parameters in watershed Management, etc. These master trainers in turn may develop suitable training modules for IWMP requirements and conduct such training programmes inviting watershed functionaries. SLNA may consider working out similar arrangements with other state/ district level training centres of other departments to promote watershed management training down the line for block and cluster level functionaries of all the converging departments. Also, there should be interface between SLNA and Inter-Departmental Working Group (IDWG) of ATMA on pre-seasonal basis for obtaining policy level interventions on convergence modalities.



ENVIRONMENT AND FORESTS

2.24 Programmes of Forest Department

Convergence with Forest Department programmes could be worked out at the State level between the two departments. In Reserved Forest areas joint planning for the treatment of the upper reaches/ ridge areas needs to be promoted. Forest Department should treat upper reaches so as to ensure comprehensive treatment of the entire watershed with adequate soil, water conservation and afforestation measures. As no other department is permitted to work in the reserved forest areas the inadequate treatment of the upper areas defeats the purpose

of watershed treatment or at best offers only fractional benefits. For Community and Social forestry in rainfed commons the planting material may come from the Forest Department. Accordingly, there is need for a joint capacity building strategy. Convergence between IWMP with Agro-Forestry and Non Timber Forest Produce (NTFP) collection can be facilitated through WDTs or micro watershed committees. This will ensure better integration of activities of Joint Forest Management Committee (JFMCs) and micro watershed committees. Convergence of specific NRM activities would need to be identified for forest and non- forest lands.

2.25 Green India Mission

The Mission is focused on enhancing eco-system services through afforestation on degraded lands. Possibility of massive plantation drives may be considered in watersheds, especially wastelands. Agro/Farm forestry linkages need to be strengthened with watershed programmes, especially for providing good quality seedlings from accredited nurseries.



III. THEWAY AHEAD – ACTION POINTS

3.1 Orientation of Decision-makers at State/ National level

State SLNAs should hold initial discussions with state level decision-makers from converging departments to create awareness regarding the opportunities and benefits of such convergence at the state, district and project level. DoLR may have Inter-Ministerial discussion to highlight the convergence opportunities that IWMP provides for.

3.2 Documentation of existing good practices

Some good examples already exist in States. These may be documented and explored further to better understand processes and modalities for upscaling or customization as per needs.

3.3 Convergence Arrangements & Issue of Necessary Instructions

SLNAs are required to interface with other Departments at the State level to work out suitable convergence arrangements with the State and District level agencies of various Departments. Convergence would be effective if concerned Government departments at the State level issue necessary instructions to their respective implementing agencies.

3.4 MoU-based Convergence Arrangements

DoLR will provide SLNAs with draft MoUs that can be customized to State and project specific requirements. The task specific convergence MoUs may be considered with ICAR institutes, SAUs, National Institute of Hydrology (NIH), CGWB, NIRD, SIRD, SAMAETI, ATMA, KVKs and other related institutes in converging Departments. These if need be, may be endorsed by the respective Departments at appropriate levels. The MoUs so agreed upon should specifically highlight technological support and participation.

3.5 Addressing the Convergence Matrix in the DPR

3.5.1 Every DPR should mandatorily include a filled in Convergence Matrix indicating resource inputs and roles of the converging partners(ANNEX-I,II&III).

3.5.2 Convergence modalities could be initially piloted in a couple of districts where DPR formulation is under process or in those which have also just entered the works phase. There appears to be a great scope for convergence under Entry Point Activities (EPA), sharing of Human Resources (HR), capacity building and techno-managerial services of line departments. The Convergence Matrix could be an addendum to the DPR.

3.5.3 Existing Convergence instruments like C-DAPs of RKVY, SREPs of ATMAs, PLPs of NABARD, Micro Agro-Eco Situation Analysis Reports of KVKs, DPRs of Watershed programmes, schemes under RD and Forest Departments, etc. should be intensively reviewed / used in formulating convergence matrix and priority setting by the SLNAs.

3.5.4 Activities felt necessary for integrated and comprehensive treatment of the watershed area, that are reflected in the DPRs, but not covered through IWMP funding, may be supported through MGNREGA, BRGF, Integrated Action Plan (IAP), Special Component Plan (SCP), Tribal Sub Plan (TSP), DPC and other State sponsored schemes.

3.6 Proposal for Line Department Support

3.6.1 Each SLNA would develop broad outlines for converging departments for each agro-climatic zone in the State, indicating scope and opportunities that IWMP can offer them and how they could make best use of it.

3.6.2 Further, location specific convergence support would be worked out by the WDCs in collaboration with the district and block level functionaries of the line departments.

3.6.3 As a strong convergence requirement the WDCs and WDTs may be represented on the district level structures of the other important programmes such as ATMA governing board and ATMA Management Committees, District Horticulture Mission, District NFSM mechanism, Scientific Advisory Committee of KVKs, and on district and block level formations of other converging core departments like Rural Development, Panchayati Raj, Forestry, Water Resources, Ground Water, Minor Irrigation, Marketing, Animal Husbandry/Dairy, Fisheries, Tribal Development, etc

3.7 Training Strategies Supportive to Convergence

3.7.1 Each SLNA would develop a broad training strategy in collaboration with SAMETI, SIRD, Rural Development & Self Employment Training Institutes (RUDSETIs), Skill and Entrepreneurial Development Institutes and training establishments of other Departments for need based involvement of line departments.

3.7.2 Further, location specific training modalities would be worked out by an inter-disciplinary expert group under the guidance of SLNA/ WDCs in collaboration with the training institutes at the district/ block level like KVKs/ATMAs/NGOs/Farmer Organizations (FOs) and training establishments & field formations of various schemes in converging sectors.

3.7.3 The field agencies like KVKs, ATMAs and WDTs would need to be geared up accordingly for training and

capacity building of farmers/farmer groups and other resource poor for providing them with better production and market linkages.

3.8 Promote Demand Driven Convergence Approaches including Indigenous Technical Knowledge (ITKs)

3.8.1 Concerted efforts are required in selecting the locally relevant priorities and assigning deliverables to the identified converging agencies, public/private, as applicable.

3.8.2 Separate accountability indicators would need to be set for various converging partners.

3.8.3 Documentation, validation and promotion of ITKs as applicable to the rainfed areas may be undertaken, with systematic involvement of ICAR institutes, agricultural universities, relevant Consultative Group on International Agricultural Research (CGIAR) institutes, SIRDs and rainfed networks (both national /international).

3.9 Credit back up – to be tracked by DDM, NABARD

Emerging entrepreneurial initiatives in a given watershed, covering agricultural and allied areas would need credit back up for sustenance and up-scaling. There should be appropriate tie up of such efforts with identified credit institutions. The DDM, NABARD in a given district could facilitate this process.

3.10 Community involvement for convergence and up-scaling

3.10.1 Farmers and farmer groups would be encouraged to successfully adopt convergence practices at the field level. Watershed Committee (WC) Secretary could supplement such efforts.

3.10.2 Farmer Field Schools (FFSs) may be promoted in large numbers so as to replicate convergence successes. IWMP may promote FFS in collaboration with district agriculture department as a part of Capacity Building (CB)/Training activities under IWMP.

3.10.3 Successful convergence experiences may be widely shared and disseminated, clearly delineating converging schemes/partners, both public and private.

3.11 Assessment of Convergence Impact

3.11.1 There should be third party evaluation of the impact of initiatives undertaken through convergence. It should lead to identification of strengths and weaknesses of the convergence processes and should be able to qualify and quantify the impact in terms of higher adoption, better conservation and water recharge, economic gains accrued to the watershed communities and sustenance of the impact.

3.11.2 Given the magnitude of investment envisaged, it becomes imperative to ensure convergence of IWMP with other development programmes in sectors such as Agriculture, Rural Development, Panchayati Raj, Water Resources, etc. This would bring in an integrated approach to the development in a given watershed, enhance incomes of the watershed communities, provide wider impact across the sectors and make such efforts more sustainable. Accordingly, the DoLR has developed a Convergence Matrix (CM), capturing the process right from the planning to implementation stage.

3.11.3 The Convergence Matrix broadly indicates: The possible areas for convergence, Specific areas identified for convergence, Estimated amount of convergence (at DPR Stage), Time period/ Phase of convergence, Quantifiable expected outcomes, Remarks of M&E System on Convergence and finally Actual convergence outcomes. The format is enclosed (Annex-I) along with the Detailed instructions to Operationalizing the Convergence process (Annex-II).

3.11.4 The DoLR has also designed a mechanism to set the Benchmarks (Performance levels) of Watershed Outcomes including indicators and benchmarks for convergence process. It would be shared with the States soon.

3.12 Monitoring & Evaluation (M&E) of Convergence

3.12.1 Institutional M&E arrangements of IWMP would take care of the Convergence aspects as well. As indicated, third party M&E arrangements may be put in place by the States to assess the impact of IWMP including convergence. There should be adequate scope for mid-course corrections as a follow up on the recommendations of M&E findings.

3.12.2 SLNAs, as a part of M&E process, may assess social impacts of convergence strategies in terms of better community partnerships, sharing of the watershed gains by the communities, social participation, development exposure, awareness of programmatic interventions, etc.

3.13 Management Information System(MIS)

MIS for collating, processing and reporting on progress vis a vis convergence actions envisaged in the DPR would need to be established at the project, SLNA and DoLR levels. MIS of relevant line departments may also have a provision to monitor the convergence component promoted under IWMP.

IV. CONCLUSION

4.1 This document reflects the feedback received from the States, incorporated to the extent possible. The original draft version was shared with all States in August 2014.

4.2 Convergence Format (as a mandatory component of the DPR) may be prioritized for action. Progress on the Convergence Matrix shared earlier may be submitted to DoLR as per the frequencies suggested (first, second and third level of reporting)

4.3 SLNAs may work out Convergence Mechanism at various levels obtain State Government approvals and issue necessary Government Orders for convergence. State-wise convergence arrangements/options would vary but the common thread of arguments in these guidelines would prevail.

4.4 Each SLNA would organize Convergence Orientation Workshops for the project functionaries to make them understand the concept and operation of Convergence. These Operational Guidelines brought out by the DoLR would need to be analyzed, discussed and internalized by the SLNA first and then shared with the departments dealing with the identified sectors to orient them on the mutual benefits to be obtained by this process.