

MGNREGS and AGRICULTURE

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Promoting agriculture: an objective of the MGNREGA

- MGNREGS: Aims both wage employment and assets creation (This emphasis on assets creation makes it different from the DBT)
- Emphasis on the types of assets have been shifting:
- 2006-7 to 2008-9 (water conservation, harvesting, community assets and largely kachcha)
- 2009 (Rajiv Gandhi Samudayik Vikas Kendra was added to the list)
- In 2013-14 (New classification of assets in terms of Category A, B, C, D)

Priority to agriculture

- The NDA-II government, through an amendment, dated 21 July 2014, inserted a clause in Para 4 (2) of the Schedule-I of the Act, thereby providing for 60% of the works in terms of cost to be undertaken for the creation of productive assets directly linked to agriculture and allied activities through the development of land, water and trees.
- As per the MGNREGS Master Circular Financial Year 2018-19, there are 260 identified permissible works/activities. Out of which, 164 are related to agriculture and allied activities.
- In 2017-18, the cost of works related to agriculture and allied activities constituted 67.8 % of the total expenditure incurred under MGNREGS.

Types of Assets

- Category-A public works relating to natural resource management [water conservation, watershed management, micro and minor irrigation, renovation of traditional water bodies, land development in common land and afforestation]
- Category-B provides for community or individual assets for the most vulnerable households: scheduled castes (SCs), scheduled tribes (STs), nomadic tribes, denotified tribes, below poverty line (BPL) families, women headed households, physically handicapped headed households, beneficiaries of land reforms and *PradhanMantriAwasYojana (PMAY)* and traditional forest dwellers as listed in the Forest Rights Act, 2006.
- Small and marginal farmers, as defined in the Agricultural Debt Waiver and Debt Relief Scheme, 2008, are also eligible, but only after exhausting the list of above mentioned eligible beneficiaries.

Types of Assets

- Category-C makes provision for common infrastructure including for national rural livelihood mission compliant self-help-groups (SHGs) for agricultural productivity promoting works [infrastructure for bio-fertilizers and warehouse for post-harvest storage and common work-sheds for livelihood activities of SHGs]
- Category-D provides for rural infrastructure [all weather roads, rural sanitation related works like individual household latrines, school toilets, anganwadicentre toilets, play fields, compound walls for government schools, construction of gram panchayat buildings, etc.]
- There has been an apparent shift from the community to individual assets since 2014.

Types of Individual Assets

- **Individual Assets meant for Vulnerable Sections**
- **Types of Individual Assets**
 - (a) Productive Assets**
 - Irrigation Assets - Improving Productivity of Land
 - Land Development Assets - Development of Fallow/Waste lands
 - Livestock Assets
 - Fisheries Assets
 - Horticulture, Sericulture, Plantation & Farm Forestry - Livelihood Improvement.
 - (b) Amenities related assets**
 - House Construction under PMAY
 - IHHL Construction under SBA
(Convergence Schemes)
- Irrigation Assets – 49%, House Construction - 25%, Horticulture/Plantations - 16%, Livestock Assets - 8%, Land Development - 2%, Fisheries Assets – 0.33%

Our study of Agricultural and Allied Individual Assets

- Study area: Rajasthan, Uttar Pradesh & Tamil Nadu
- Two districts from with high proportion of individual assets from two different agro-climatic regions of each state
- 240 sample beneficiary households selected from 57 Gram Panchayats & 71 villages from 6 districts & 3 states
- Survey reference year – 2016-17
- Landed – 220 HH (92%), Landless – 20 HH (8%)
- All landless HHs from Krishnagiri district of Tamil Nadu
- Women-headed HH – 9 (3.75%) – All were from Tamil Nadu
- Average land holding size of sample beneficiaries was between 1 & 4 Acres (Marginal & Small Farmers)
- OBC-38%, SC-28%, ST-26%, General-8%

Sample Districts & Blocks

States	Districts	Agro-Climatic Zones	Blocks	
			IPPE	Non-IPPE
Rajasthan	Sawai Madhopur	Flood Prone Eastern Plain	Bonli	Sawai Madhopur
	Banswara	Humid Southern Plain	Choti Saran, Gagartalai	
Uttar Pradesh	Shravasti	Bhabar & Terai Zone	Jamunaha, Sirsiya	
	Mirzapur	Vindhyan Zone	Rajgarh	Pahari
Tamil Nadu	Krishnagiri	North West Zone	Kelamangalai	Hosur
	Cuddalore	North East Zone	Vridhachalam	Cuddalore

**Status of Individual Assets in Total MGNREGA Works in India (%)
(2014-15 to 2016-17)**

Regions	Completed	On-going	Approved but not in Progress
INDIA	29.75	43.47	35.77
Rajasthan	31.91	61.98	51.30
Uttar Pradesh	21.12	44.67	46.59
Tamil Nadu	12.99	13.84	0.16

Source: www.nrega.nic.in

Distribution of Individual Assets across the Study Region

Regions	Agricultural Assets					Livestock Shelter	Fishery Asset	Horticulture /Plantation
	Irrigation				Fallow/Waste land Development			
	Dug Well	Farm Pond	Other Water Harvesting works	Boring /Tube well				
Bonli	1		18			8		
Sawai Madhopur			16		1	3		
<i>SAWAI MADHOPUR</i>	<i>1</i>		<i>34</i>		<i>1</i>	<i>11</i>		
Choti Saran	19		1					
Gagartalai	17		1			1		1
<i>BANSWARA</i>	<i>36</i>		<i>2</i>			<i>1</i>		<i>1</i>
RAJASTHAN	37		36		1	12		1
Jamunaha			1	13	6			
Sirsiya		1		19				
<i>SHRAVASTHI</i>		<i>1</i>	<i>1</i>	<i>32</i>	<i>6</i>			
Rajgarh	3	6			11			
Pahari		3			17			
<i>MIRZAPUR</i>	<i>3</i>	<i>9</i>			<i>28</i>			
UTTAR PRADESH	3	10	1	32	34			
Kalamangalai		7				12	1	
Hosur		2				18		
<i>KRISHNAGIRI</i>		<i>9</i>				<i>30</i>	<i>1</i>	<i>0</i>
Vridhachalam							20	
Cuddalore						2	17	1
<i>CUDDALORE</i>						<i>2</i>	<i>37</i>	<i>1</i>
TAMIL NADU		9				32	38	1
Total	40 (16.19)	19 (7.69)	37 (14.98)	32 (12.96)	35 (14.17)	44 (17.81)	38 (15.38)	2 (0.81)

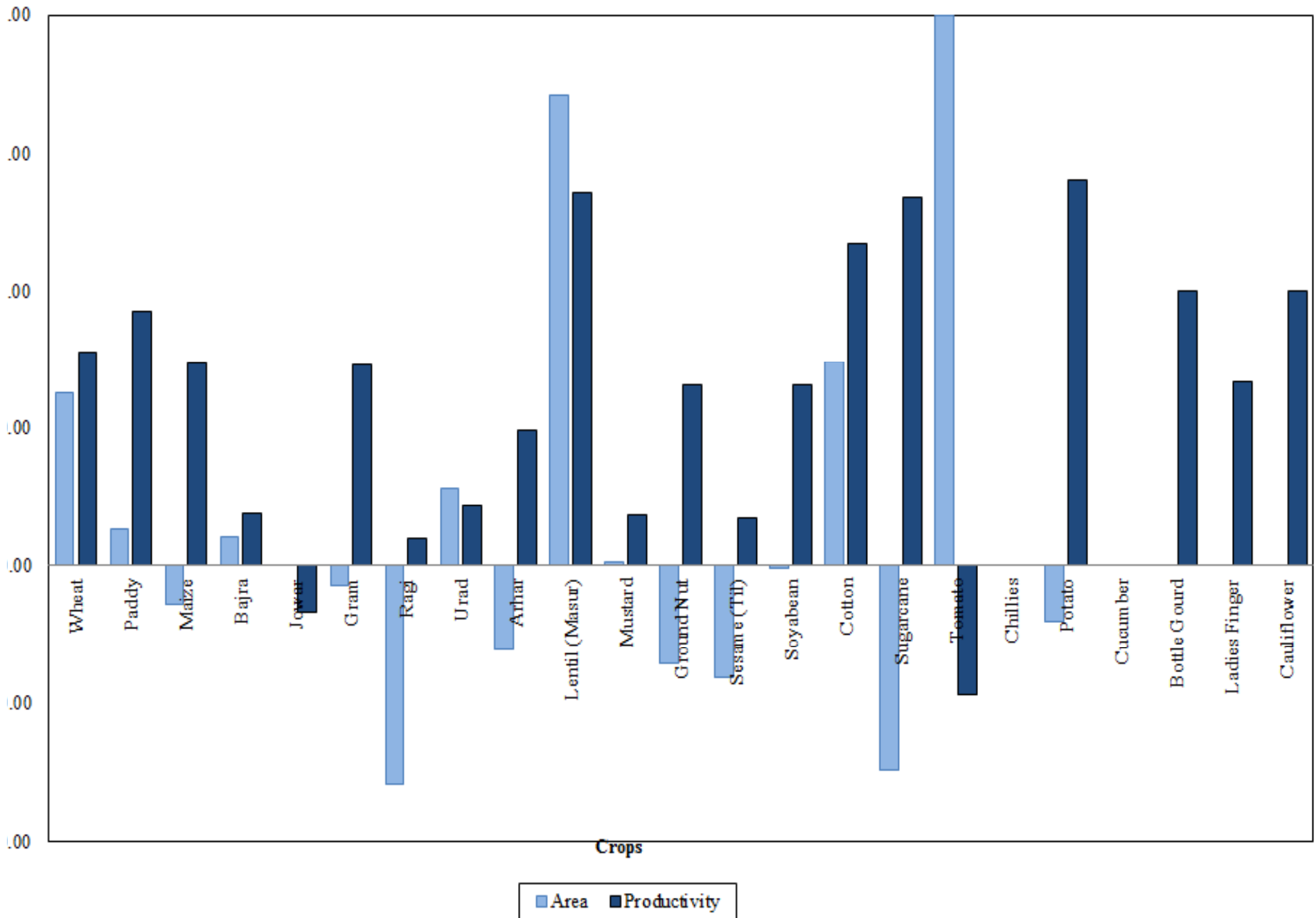
Impacts of Agricultural and allied Assets

- Different types of assets create different types of benefits
- Impacts of irrigation works:
 - (a) increase in crop acreage (b) productivity (c) crop diversification
- Impacts of waste and fallow land development works:
 - (a) increase in crop acreage
- The overall impacts of land and irrigation works:
 - (a) increase in the income of beneficiary households
 - (b) food security at the community level
- Impacts of livestock and fishery works:
 - (a) increase in the income level of the household
 - (b) availability of high protein nutritious food at the community level
 - (c) it also contributes to agriculture
- Fisheries and horticulture:
 - (a) substantive rise in incomes of beneficiary HH
 - (b) Relative return is high (Benefit Cost Ratio-BCR) is the highest.

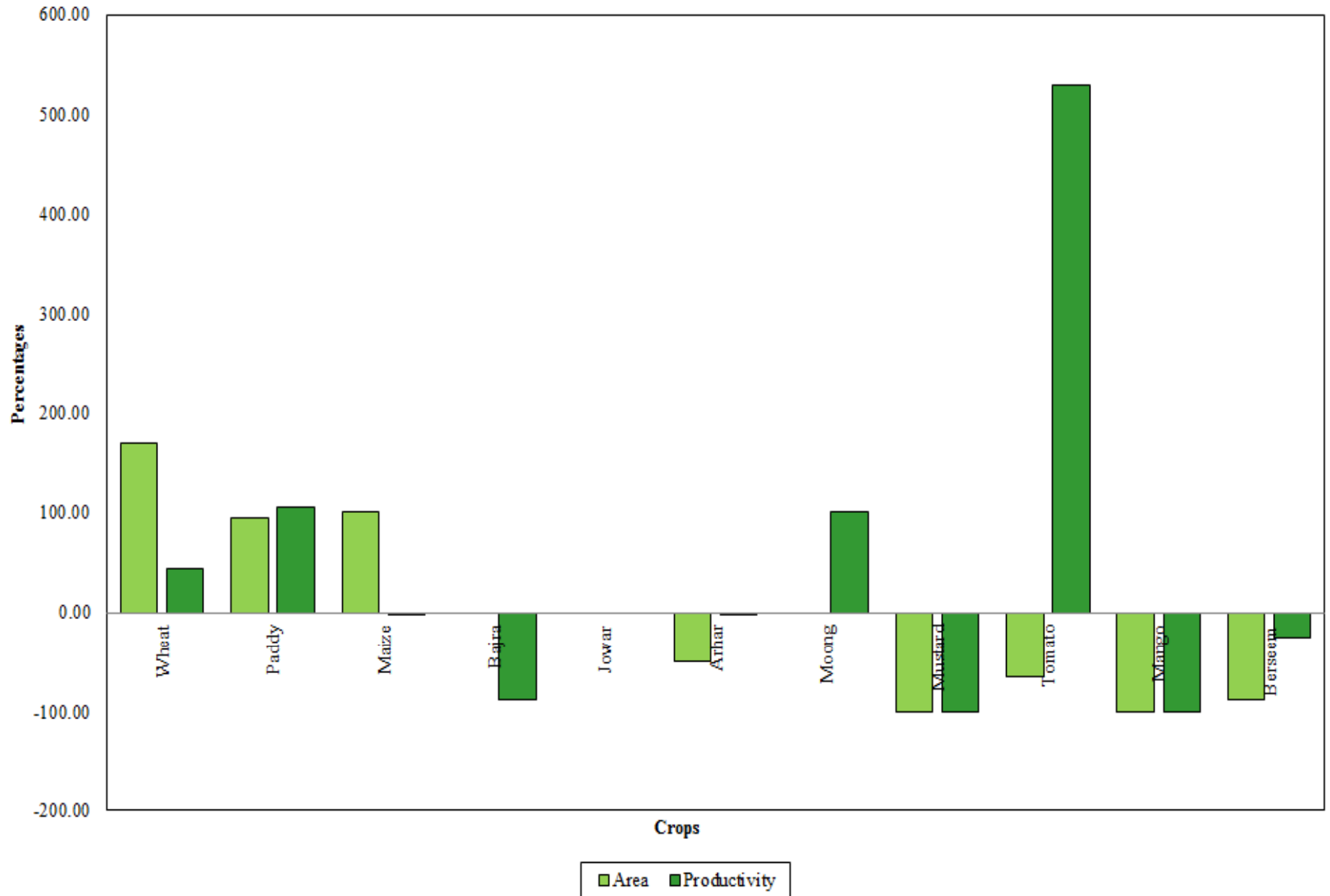
Increase in Acreage under Crop Cultivation due to Irrigation and Land Development Assets of the Sample Beneficiaries

Regions	Acreage of crops cultivated by the beneficiaries of irrigation assets (in acres)			Acreage of crops cultivated by the beneficiaries of land development assets (in acres)		
	Pre- assets total area	Post -assets total area	Change in total area	Pre- assets total area	Post -assets total area	Change in total area
Bonli	84.06	94.07	10.01			
Sawai Madhopur	59.4	63.13	3.73	3.76	3.76	0
<i>SAWAI MADHOPUR</i>	<i>143.46</i>	<i>157.2</i>	<i>13.74</i>	<i>3.76</i>	<i>3.76</i>	<i>0</i>
Choti Saran	50.12	53.85	3.73			
Gagartalai	31.9	34.4	2.5			
<i>BANSWARA</i>	<i>82.02</i>	<i>88.25</i>	<i>6.23</i>			
RAJASTHAN	225.48	245.45	19.97	3.76	3.76	0
Jamunaha	24	29.4	5.4	3.2	6.55	3.35
Sirsiya	22.6	46.8	24.2			
<i>SHRAVASTHI</i>	<i>46.6</i>	<i>76.2</i>	<i>29.6</i>	<i>3.2</i>	<i>6.55</i>	<i>3.35</i>
Rajgarh	22.75	23.56	0.81	9.28	11.01	1.73
Pahari	7.2	7.82	0.62	9.45	22.88	13.43
<i>MIRZAPUR</i>	<i>29.95</i>	<i>31.38</i>	<i>1.43</i>	<i>18.73</i>	<i>33.89</i>	<i>15.16</i>
UTTAR PRADESH	76.55	107.58	31.03	21.93	40.44	18.51
Kelamangalai	15	13.5	-1.5			
Hosur		3	3			
<i>KRISHNAGIRI</i>	<i>15</i>	<i>16.5</i>	<i>1.5</i>			
Vridhachalam						
Cuddalore						
<i>CUDDALORE</i>						
TAMIL NADU	15	16.5	1.5			
Total	317.03	369.53	52.5	25.69	44.2	18.51

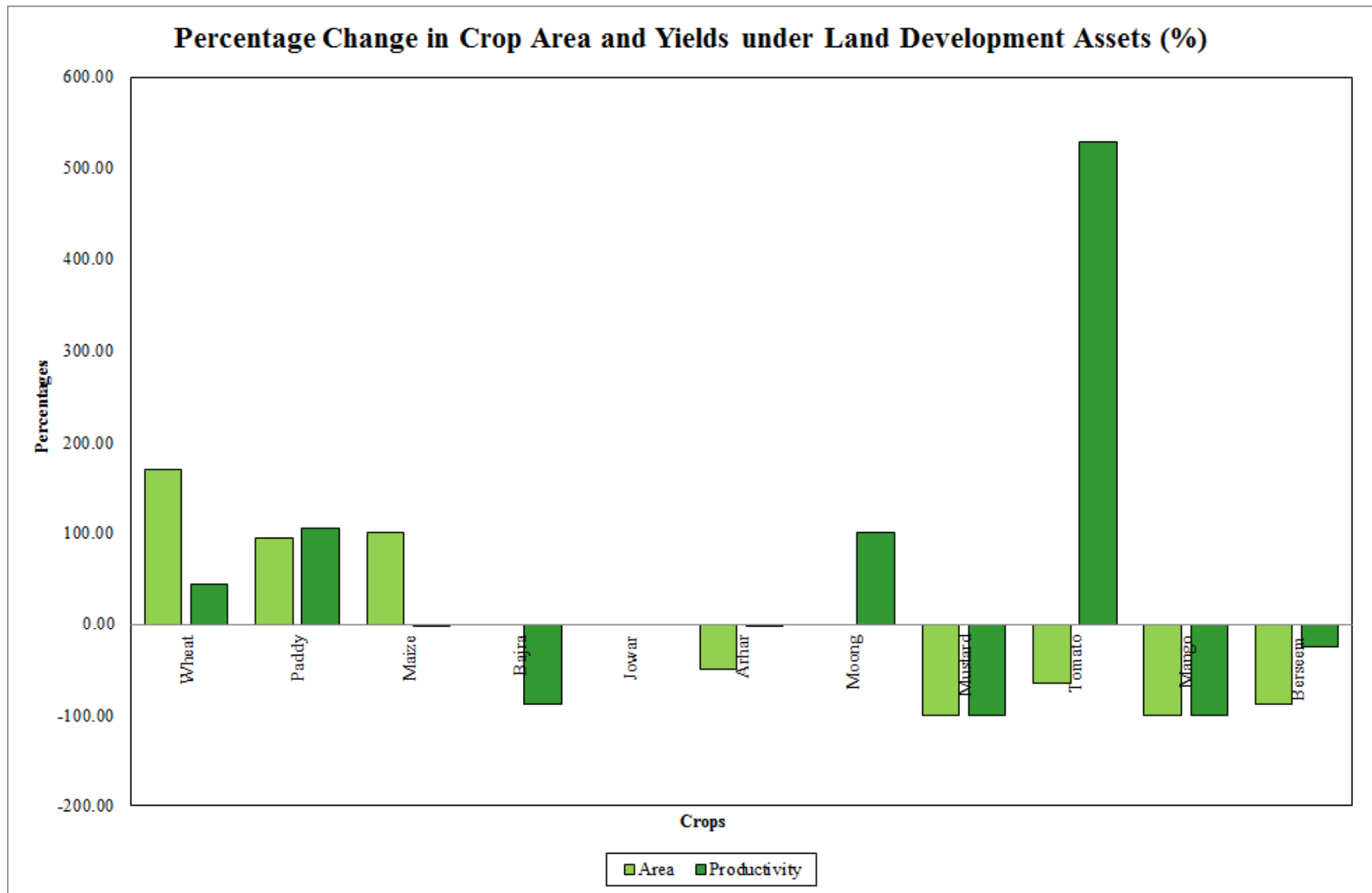
Percentage Change in Crop Area and Productivity under Irrigation Assets (%)



Percentage Change in Crop Area and Yields under Land Development Assets (%)



Change in Area and Productivity of Crops Grown by the Beneficiaries of Land Development Assets (%)



Increase in Crop Acreages and Yields after the creation of Irrigation Assets and Land Development Works on the land of Sample Beneficiaries

Irrigation Assets			
States	Incremental Acreage (%)	New Acreages (Acres)	Incremental Yields (%)
Rajasthan	Cotton (74%), Wheat (65%), Paddy (28%), Urad (28%), Bajra (11%), Mustard (1%)	Coriander (0.63 ac), Green Fodder (0.4 ac), Methi (0.31 ac)	Cotton (116%), Potato (100%), Maize (78%), Gram (70%), Wheat (65%), Soyabean (65%), Masur (50%), Arhar (25%), Groundnut (25%), Urad (22%), Bajra (19%), Mustard (18%), Paddy (5%)
Uttar Pradesh	Masoor (210%), Arhar (152%), Maize (81%), Wheat (60%), Paddy (14%)	Mustard (0.1 ac), Peppermint (2 ac), Brinjal (1.56 ac)	Sugarcane (134%), Masur (130%), Paddy (104%), Cauliflower (100%) Maize (95%), Wheat (91%), Arhar (81%), Bottlegourd (67%), Tomato (20%)
Tamil Nadu	Tomato (233%)	Maize (2 ac), Capsicum (1 ac)	Ragi (10%)
Land Development Assets			
Rajasthan			Moong (100%)
Uttar Pradesh	Wheat (233%), Paddy (94%)	Maize (0.31 ac), Gram (0.16 ac), Til (0.31 ac), Chillies (0.67 ac), Green Peas (0.01 ac)	Tomato (258%), Paddy (105%), Wheat (64%)

Crop Diversification

Agricultural Assets	Pre - Asset Share of Foodgrains (%)	Post - Asset Share of Foodgrains (%)	Yield Increases
Irrigation Assets	81%	80%	19/29 crops (66%) crops showed yield increases
Land Development Assets	88%	96%	4/15 crops (27%) crops showed yield increases

Shares of Category – B Individual Asset to Gross Income

Regions	MGNREGS Individual Asset Income (in Rs.)								MGNREGS Wages (Rs)	Non-MGNREGS Income/Other Income (Rs.)	Grand Total Income (Rs.)	Income Shares (%)			Total MGNREGS Income (Rs/HH)
	Agricultural Asset Income		Value of Production of Milk/Dairy	Value from Sale of Sheep & Goats & Sale of Meat	Value of Sale of Vermicompost	Value of Fish Production	Value of Horticulture Production	Total MGNREGS Individual Asset Income				MGNREGS Individual Asset Income	MGNREGS Wages	Non-MGNREGS Income	
	Value of Crop Production from Irrigation Assets	Value of Crop Production from Land Development Assets													
Bonli	992138		137000		5600			1134738	27450	1551700	2686438	42.24	1.02	57.76	56736.90
Sawai Madhopur	702173	21040	81300					804512.51	102784	2012504	2817017	28.56	3.65	71.44	40225.63
<i>SAWAI MADHOPUR</i>	<i>1694311</i>	<i>21040</i>	<i>218300</i>		<i>5600</i>			<i>1939251</i>	<i>130234</i>	<i>3564204</i>	<i>5503455</i>	<i>35.24</i>	<i>2.37</i>	<i>64.76</i>	<i>48481.26</i>
Choti Saran	862500							862500	120125	860775	1723275	50.05	6.97	49.95	43125.00
Gagartalai	438125				2400		30000	470525.01	41850	3130240	3600765	13.07	1.16	86.93	23526.25
<i>BANSWARA</i>	<i>1300625</i>				<i>2400</i>		<i>30000</i>	<i>1333025</i>	<i>161975</i>	<i>3991015</i>	<i>5324040</i>	<i>24.47</i>	<i>3.04</i>	<i>75.53</i>	<i>33325.63</i>
RAJASTHAN	2994936	21040	218300		8000		30000	3272276	292209	7555219	10827495	29.94	2.70	70.06	40903.44
Jamunaha	383250	67063						450312.5	5200	371488	821800	54.80	0.63	45.20	22515.63
Sirsiya	821800							821800	26250	434600	1256400	65.41	2.09	34.59	41090.00
<i>SHRAVASTHI</i>	<i>1205050</i>	<i>67063</i>						<i>1272113</i>	<i>31450</i>	<i>806088</i>	<i>2078200</i>	<i>61.21</i>	<i>1.51</i>	<i>38.79</i>	<i>31802.81</i>
Rajgarh	253881	140285						394166	46542	1948344	2342510	16.83	1.99	83.17	19708.30
Pahari	157325	289015						446340	102738	985238	1431578	31.18	7.18	68.82	22317.00
<i>MIRZAPUR</i>	<i>411206</i>	<i>429300</i>						<i>840506</i>	<i>149280</i>	<i>2933582</i>	<i>3774088</i>	<i>22.27</i>	<i>3.96</i>	<i>77.73</i>	<i>21012.65</i>
UTTAR PRADESH	1616256	496363						2112619	180730	3739670	5852288	36.10	3.09	63.90	26407.73
Kelamangalai	308500			183400		100000		591900	202750	849050	1440950	41.08	14.07	58.92	29595.00
Hosur	15100		357000	44000				416100	139100	866750	1282850	32.44	10.84	67.56	20805.00
<i>KRISHNAGIRI</i>	<i>323600</i>		<i>357000</i>	<i>227400</i>		<i>100000</i>		<i>1008000</i>	<i>341850</i>	<i>1715800</i>	<i>2723800</i>	<i>37.01</i>	<i>12.55</i>	<i>62.99</i>	<i>25200.00</i>
Vridhachalam						428000		428000	267100	2235900	2663900	16.07	10.03	83.93	21400.00
Cuddalore			226800		142000	1369000	67000	1804800	119100	3699700	5504500	32.79	2.16	67.21	90240.00
<i>CUDDALORE</i>			<i>226800</i>		<i>142000</i>	<i>1797000</i>	<i>67000</i>	<i>2232800</i>	<i>386200</i>	<i>5935600</i>	<i>8168400</i>	<i>26.51</i>	<i>4.73</i>	<i>73.49</i>	<i>55820.00</i>
TAMIL NADU	323600		583800	227400	142000	1897000	67000	3240800	728050	7651400	10892200	29.14	6.68	70.86	40510.00
Total	4934792	517403	802100	227400	150000	1897000	97000	8625694	1200989	18946289	27571983	31.28	4.36	68.72	35940.39

Impact of Category – B Assets on Migration

Regions	Migration Reduced	Migration Status Same as Earlier	Can't Say
Bonli	4	4	12
Sawai Madhopur	8	12	0
<i>SAWAI MADHOPUR</i>	<i>12</i>	<i>16</i>	<i>12</i>
Choti Saran	12	4	4
Gagartalai	3	13	4
<i>BANSWARA</i>	<i>15</i>	<i>17</i>	<i>8</i>
RAJASTHAN	27 (33.75)	33 (41.25)	20 (25)
Jamunaha	12	8	0
Sirsiya	7	13	0
<i>SHRAVASTHI</i>	<i>19</i>	<i>21</i>	<i>0</i>
Rajgarh	2	5	13
Pahari	1	5	14
<i>MIRZAPUR</i>	<i>3</i>	<i>10</i>	<i>27</i>
UTTAR PRADESH	22 (27.5)	31 (38.75)	27 (33.75)
Kelamangalai	0	0	20
Hosur	1	0	19
<i>KRISHNAGIRI</i>	<i>1</i>	<i>0</i>	<i>39</i>
Vridhachalam	7	1	12
Cuddalore	1	5	14
<i>CUDDALORE</i>	<i>8</i>	<i>6</i>	<i>26</i>
TAMIL NADU	9 (11.25)	6 (7.5)	65 (81.25)
Total	58 (24.17)	70 (29.17)	112 (46.67)

Reasons for Status Quo in Migration Post – Assets

Regions	Insufficient Income from Assets	Irregular Returns from Assets
Bonli		4
Sawai Madhopur	8	4
<i>SAWAI MADHOPUR</i>	<i>8</i>	<i>8</i>
Choti Saran	1	3
Gagartalai	11	2
<i>BANSWARA</i>	<i>12</i>	<i>5</i>
RAJASTHAN	20 (60.61)	13 (39.39)
Jamunaha	6	2
Sirsiya	2	11
<i>SHRAVASTHI</i>	<i>8</i>	<i>13</i>
Rajgarh	3	2
Pahari	2	3
<i>MIRZAPUR UTTAR PRADESH</i>	<i>5</i>	<i>5</i>
UTTAR PRADESH	13 (41.94)	18 (58.06)
Kelamangalai		
Hosur		
<i>KRISHNAGIRI</i>		
Vridhachalam	1	
Cuddalore	5	
<i>CUDDALORE</i>	<i>6</i>	
TAMIL NADU	6 (100.00)	
Total	39 (55.71)	31 (44.29)

Benefit-Cost Ratio

Regions	Irrigation Assets/HH		Land Development Asset/HH		Livestock Shelter/HH		Fisheries Promotion /HH		Horticulture & Plantation/HH		Total Assets/HH		Regional BCR
	Cost	Benefit	Cost	Benefit	Cost	Benefit	Cost	Benefit	Cost	Benefit	Cost	Benefit	
Bonli	103983.16	52217.79			34882.63	17825.00					83508.93	56736.90	0.679
Sawai Madhopur	84812.50	43885.78	70000.00	21040.00	44000.00	27100.00					77950.00	40225.63	0.516
<i>SAWAI MADHOPUR</i>	<i>95219.43</i>	<i>48408.87</i>	<i>70000.00</i>	<i>21040.00</i>	<i>37369.18</i>	<i>20354.55</i>					<i>81143.43</i>	<i>48481.26</i>	<i>0.597</i>
Choti Saran	264750.00	43125.00									264750.00	43125.00	0.163
Gagartalai	187666.67	24340.28			140000.00	2400.00			100000.00	30000.00	180900.00	23526.25	0.130
<i>BANSWARA</i>	<i>228236.84</i>	<i>34226.97</i>			<i>140000.00</i>	<i>2400.00</i>			<i>100000.00</i>	<i>30000.00</i>	<i>222825.00</i>	<i>33325.63</i>	<i>0.150</i>
RAJASTHAN	164461.37	41026.51	70000.00	21040.00	45921.75	18858.33			100000.00	30000.00	146284.38	40903.44	0.280
Jamunaha	7285.71	27375.00	15416.67	11177.08							9725.00	22515.63	2.315
Sirsiya	8515.00	41090.00									8515.00	41090.00	4.826
<i>SHRAVASTHI</i>	<i>8008.82</i>	<i>35442.65</i>	<i>15416.67</i>	<i>11177.08</i>							<i>9120.00</i>	<i>31802.81</i>	<i>3.487</i>
Rajgarh	106222.22	28209.00	128636.36	12753.18							118550.00	19708.30	0.166
Pahani	115666.67	52441.67	107204.94	17000.88							108474.20	22317.00	0.206
<i>MIRZAPUR</i>	<i>108583.33</i>	<i>34267.17</i>	<i>115624.43</i>	<i>15332.14</i>							<i>113512.10</i>	<i>21012.65</i>	<i>0.185</i>
UTTAR PRADESH	34245.65	35136.00	97940.71	14598.90							61316.05	26407.73	0.431
Kelamangalai	123285.71	44071.43			92583.33	15283.33	75000.00	100000.00			102450.00	29595.00	0.289
Hosur	115000.00	7550.00			94526.50	22277.78					96573.85	20805.00	0.215
<i>KRISHNAGIRI</i>	<i>121444.44</i>	<i>35955.56</i>			<i>93749.23</i>	<i>19480.00</i>	<i>75000.00</i>	<i>100000.00</i>			<i>99511.93</i>	<i>25200.00</i>	<i>0.253</i>
Vridhachalam							85100.00	21400.00			85100.00	21400.00	0.251
Cuddalore					172500.00	184400.00	77669.76	80529.41	82540.00	67000.00	87396.30	90240.00	1.033
<i>CUDDALORE</i>					<i>172500.00</i>	<i>184400.00</i>	<i>81686.11</i>	<i>48567.57</i>	<i>82540.00</i>	<i>67000.00</i>	<i>86248.15</i>	<i>55820.00</i>	<i>0.647</i>
TAMIL NADU	121444.44	35955.56			98671.16	29787.50	81510.16	49921.05	82540.00	67000.00	92880.04	40510.00	0.436
Total	114640.47	38553.06	97142.40	14782.93	84284.95	26806.82	81510.16	49921.05	91270.00	48500.00	101467.32	35940.39	0.354
Asset BCR	0.34		0.15		0.32		0.61		0.53		0.35		

Take Away Points

- Agricultural and allied assets created under MGNREGS have long term impact.
- Main impact pertains to increase in cultivable land, crop productivity & crop diversification from both irrigation as well as land development assets.
- Horticulture, Fisheries and livestock assets result in significant increase in the income of beneficiary households.
- Impacts, however, depend on the nature & durability of assets, pre & post extension support and absorptive capacity of beneficiaries (entrepreneurial skills, risk taking capabilities, knowledge base of the beneficiaries etc).
- 25% - Did not seek wage employment under MGNREGS after getting individual assets, mainly because they earned sufficient post-assets