**1. Technology Interventions:**

***NRM technologies:***

* [*https://icar.org.in/files/NRM-2702.pdf*](https://icar.org.in/files/NRM-2702.pdf)
* [*https://krishi.icar.gov.in/PDF/com\_tech/NRM.pdf*](https://krishi.icar.gov.in/PDF/com_tech/NRM.pdf)

***Land degradation/Soil Conservation and Watershed Management :***

* *Watershed management : Give PDF downloaded link*

*Working manual :* [*https://nrega.nic.in/Netnrega/Data/SPS\_Watershed\_Works\_Manual\_Eng.pdf*](https://nrega.nic.in/Netnrega/Data/SPS_Watershed_Works_Manual_Eng.pdf)

* *Ravine reclamation :*[*https://icar.org.in/node/305*](https://icar.org.in/node/305)

[*https://epubs.icar.org.in/index.php/IndFarm/article/view/69291/29392*](https://epubs.icar.org.in/index.php/IndFarm/article/view/69291/29392)

* *Preventing landslides:* [*http://www.cswcrtiweb.org/Bulletin/English/ooty\_jgt\_03\_oct\_2018.pdf*](http://www.cswcrtiweb.org/Bulletin/English/ooty_jgt_03_oct_2018.pdf)
* *Salinity management* : <https://cssri.res.in/technology/>
* *Bio-drainage technology* for reclamation of waterlogged saline soils*:* [*https://krishi.icar.gov.in/jspui/bitstream/123456789/3600/1/Biodrainage%20Jeet%20Ram%20et%20al..pdf*](https://krishi.icar.gov.in/jspui/bitstream/123456789/3600/1/Biodrainage%20Jeet%20Ram%20et%20al..pdf)
* *Sub-surface drainage technology* for reclamation of waterlogged saline soils : [*https://krishi.icar.gov.in/Technology/DetailReport.jsp?id=201520967312645*](https://krishi.icar.gov.in/Technology/DetailReport.jsp?id=201520967312645)
* *Managing Wind Erosion :* [*http://www.cazri.res.in/publications/Wind-Erosion.pdf*](http://www.cazri.res.in/publications/Wind-Erosion.pdf)
* Managing coastal salinity: <http://cwc.gov.in/sites/default/files/salinity-report-hydrology-cwc.pdf>
* *Managing acid soils :* [*http://www.kiran.nic.in/pdf/Extra/acid\_soils.pdf*](http://www.kiran.nic.in/pdf/Extra/acid_soils.pdf)

***Soil health and fertility :***

* *Soil health Management :*[*https://iiss.icar.gov.in/Institute%20Technology.html*](https://iiss.icar.gov.in/Institute%20Technology.html)
* *Waste to wealth:* [*https://icar.org.in/sites/default/files/Creating-Wealth-From-Agricultural-Waste.pdf*](https://icar.org.in/sites/default/files/Creating-Wealth-From-Agricultural-Waste.pdf)
* *Biofertilizers :* [*https://aicrp.icar.gov.in/biofertilizers/technical-bulletin-2/*](https://aicrp.icar.gov.in/biofertilizers/technical-bulletin-2/)

***Water management including waste water:***

* *Irrigation water management :* [*http://www.iiwm.res.in/publication.php*](http://www.iiwm.res.in/publication.php)[*http://www.iiwm.res.in/publication.php#lf*](http://www.iiwm.res.in/publication.php#lf)
* *Waste water* treatment: [*https://icar.org.in/content/jalopchar-eco-friendly-wastewater-treatment-technology*](https://icar.org.in/content/jalopchar-eco-friendly-wastewater-treatment-technology)
* *Managing arsenic contamination in agriculture :*[*https://bausabour.ac.in/album/File109\_07\_202011\_47\_28PIMG1.pdf#page=27*](https://bausabour.ac.in/album/File109_07_202011_47_28PIMG1.pdf#page=27)[*https://www.researchgate.net/profile/Srikanta-Samanta/publication/311696016\_Arsenic\_contamination\_in\_inland\_open\_water\_ecosystems\_and\_risk\_of\_arsenic\_exposure\_through\_fish\_and\_other\_aquatic\_biota/links/59ed7cba0f7e9bfdeb71b315/Arsenic-contamination-in-inland-open-water-ecosystems-and-risk-of-arsenic-exposure-through-fish-and-other-aquatic-biota.pdf*](https://www.researchgate.net/profile/Srikanta-Samanta/publication/311696016_Arsenic_contamination_in_inland_open_water_ecosystems_and_risk_of_arsenic_exposure_through_fish_and_other_aquatic_biota/links/59ed7cba0f7e9bfdeb71b315/Arsenic-contamination-in-inland-open-water-ecosystems-and-risk-of-arsenic-exposure-through-fish-and-other-aquatic-biota.pdf)

***Farming/cropping system :***

* *Package of practices:* [*https://kvk.icar.gov.in/p\_prac.aspx*](https://kvk.icar.gov.in/p_prac.aspx)
* *Integrated farming system models :*[*https://icar.org.in/sites/default/files/BulletinIFS.pdf*](https://icar.org.in/sites/default/files/BulletinIFS.pdf)
* *Organic farming :* [*https://iifsr.icar.gov.in/icar-iifsr/npof/index.php?id=package\_of\_practices*](https://iifsr.icar.gov.in/icar-iifsr/npof/index.php?id=package_of_practices)
* *Efficient alternative cropping systems :* [*https://iifsr.icar.gov.in/icar-iifsr/pdf/Efficient%20Alternative%20Cropping%20Systems%20%28BOOK%29.pdf*](https://iifsr.icar.gov.in/icar-iifsr/pdf/Efficient%20Alternative%20Cropping%20Systems%20%28BOOK%29.pdf)
* *Agroforestry technologies:* [*https://cafri.res.in/technical-bulletins/*](https://cafri.res.in/technical-bulletins/)
* *Solar farming:* [*https://icar.org.in/sites/default/files/Agri-voltaic%20System.pdf*](https://icar.org.in/sites/default/files/Agri-voltaic%20System.pdf)
* *Prominsing dryland technologies:*
* *Horticultural technologies:* [*https://www.iihr.res.in/varieties-and-technologies-released-icar-iihr*](https://www.iihr.res.in/varieties-and-technologies-released-icar-iihr)
* *Precision agriculture:* [*https://krishi.icar.gov.in/jspui/bitstream/123456789/33996/1/Precision%20Agriculture%20in%20India\_%20Opportunities%20and%20Challenges.pdf*](https://krishi.icar.gov.in/jspui/bitstream/123456789/33996/1/Precision%20Agriculture%20in%20India_%20Opportunities%20and%20Challenges.pdf)
* *Conservation agriculture:* [*https://iiss.icar.gov.in/crponca/CA%20\_ResearchPaper/Chapter-2.pdf*](https://iiss.icar.gov.in/crponca/CA%20_ResearchPaper/Chapter-2.pdf)

***Climate resilient agriculture:***

* *Climate resilient technologies :* [*http://www.nicra-icar.in/nicrarevised/images/publications/Smart%20practices%20&%20technologies.pdf*](http://www.nicra-icar.in/nicrarevised/images/publications/Smart%20practices%20&%20technologies.pdf)
* *Drought management :* [*https://agricoop.nic.in/sites/default/files/Drought%20Management%20Plan%20.pdf*](https://agricoop.nic.in/sites/default/files/Drought%20Management%20Plan%20.pdf)
* *Coastal Bioshield :* [*http://59.160.153.188/library/sites/default/files/Toolkit%20for%20establishing%20coastal%20biosheid\_0.pdf*](http://59.160.153.188/library/sites/default/files/Toolkit%20for%20establishing%20coastal%20biosheid_0.pdf)
* *Abiotic stress management :* [*https://niasm.icar.gov.in/sites/default/files/pdfs/Technology%20bulletin-33\_opt.pdf*](https://niasm.icar.gov.in/sites/default/files/pdfs/Technology%20bulletin-33_opt.pdf)
* *District Contingency Plan:* [*https://agricoop.nic.in/en/DocAgriContPlan#gsc.tab=0*](https://agricoop.nic.in/en/DocAgriContPlan#gsc.tab=0)

***State/zone specific technologies:***

*Punjab:*

* *Agricultural technology :* [*https://www.pau.edu/fportalnew/*](https://www.pau.edu/fportalnew/)
* *District Contingency Plan:* [*https://agricoop.nic.in/en/AgricultureContigencyPlan/PUNJAB#gsc.tab=0*](https://agricoop.nic.in/en/AgricultureContigencyPlan/PUNJAB#gsc.tab=0)

**2. Organization and Establishments for Technology Backstopping**

***SAUs/CAUs/KVKs:***

|  |  |
| --- | --- |
| Punjab Agricultural University, Ludhiana | <https://www.pau.edu/> |
| KVK Portal | <https://kvk.icar.gov.in> |

***List of KVKs:*** <https://icar.org.in/content/punjab>

***List of Soil testing Laboratories****:* <https://farmer.gov.in/STLDetails.aspx?State=3>