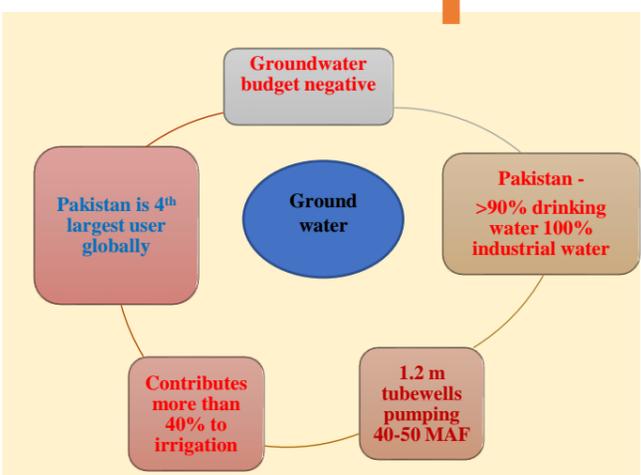
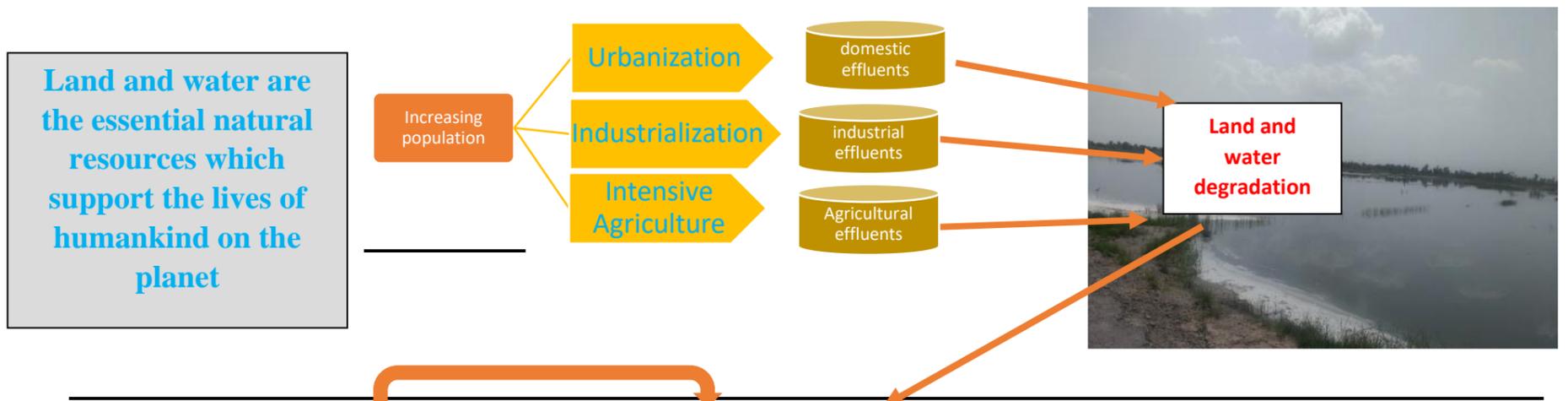


Improving groundwater management through community participation for land and water care by development of social capital and networks - a case study from Punjab Pakistan

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- ### Challenges
- Water quality – (surface + GW)
 - Salinity -secondary salinization
 - Sodicity-hardness
 - Loss of organic matter/nutrients
 - Low land and water productivity
 - Land subsidence -over use of GW
 - Over-depleted GW- increasing costs
 - Lack of human capacity and awareness



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- ### Key Results
- **Capacity enhancement:**
 - i) Provision of training on monitoring, modeling, stakeholder's consultation;
 - ii) New upgraded model, loggers and other monitoring tools
 - **Supportive networks:** (linkages with UAF, PCRWR, BID, SID, CSU, SHFs)
 - **Establishment of trust:** (seeing is believing -field trials with low delta crops)
 - **Integrated knowledge base:** (monitoring-modeling, management-ICTs - ApnaPani)
 - **Innovative tools-** (PRAs, RAPs, IPA, MERL)
 - **Gender and youth mobilization:** (involvement of youth and women)
 - **Collaborative approach:-**15 orgs (multi-sectoral, multi-disciplinary and multi-level partnerships/collaborations)
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Major Impacts

Community willing and participating in monitoring- end users were involved in monitoring, equipments provided to them, now they are monitoring	Improved data quality- new tools and training of HR
Improved GW management practices being adopted by farmers , awareness raising field workshops	Industry – Academia collaboration – good initiative
Provincial irrigation departments- knowledge/experience sharing with each other	Improved capacity in monitoring, modelling and management – Human capital-New piezometers, loggers, GW model, data storage and management

- ### Recommendations/Way forward
- **Establishment of stakeholder forums-** for other sites
 - **good experience –** can be done in future projects
 - **Can use/upscale now the innovative tools learned from the project**
 - **Consultation with stakeholders shall be done for success of GW projects in future.**
 - **Awareness raising among the stakeholders-** a compulsory component
 - **Use of ICTs/tools/models – ApnaPani, ApnaFarm**
 - **Post model evaluation/ verification after 5, 10 years**
 - **Development of linkages/partnerships with universities/other organizations**