**Groundwater Quality Characterization for Safe Drinking Water Supply in Sheikhpura District of Bihar, India: A Geospatial Approach**

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Fig. S1 Hydrogeological map of Sheikhpura district, Bihar (CGWB, 2013)

Table S1 Villages categorized under different water quality parameters

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| **Water Quality** |  **List of Villages (percentage area), including uninhabited villages denoted by \***  |
| Poor (5.13%) | Barari (0.09), Bewan (0.01), Belchi (0.64), Chewara (0.02), Diha (0.78), Eksari (0.16), Husenabad (0.85), Karki (0.45), Kamalgarh (0.00), Kusekher (0.01), Mane (0.16), Maninda (0.00), Nabinagar Kakrar (0.91), Pandhar (0.23), Patraita (0.02), Rampur (0.14), Ranka (0.01), Raundi (0.02), Raundaphar (0.05), Sheikhpura (0.45), Usari (0.13) |
| Medium (33.95%) | Abgil (0.27), Ahiapur (0.01), Ahiapur\* (0.16), Ahmadpur (0.05), Aijhi (0.07), Aima Matokhar\* (0.01), Aima Pinjri\* (0.05), Akauna (0.09), Amari (0.03), Andauli (0.05), Arazi Dhaunsa\* (0.03), Arazigangti\* (0.02), Aruara (0.09), Ariari (0.32), Audhe (0.06), Babhan Bigha (0.26), Badshahpur (0.03), Bahadurpur\* (0.05), Baih Katta (0.16), Baikathpur (0.06), Bakarpur Bank (0.27), Ballapur\* (0.00), Bara Bigha (0.14), Barari (0.38), Barbigha (0.43), Bariarpur\* (0.03), Barokhar (0.07), Baruna (0.06), Bazidpur (0.17), Belao (1.27), Belauni (0.05), Belchhi (0.20), Belkhundi (0.01), Bewan (0.63), Bhadarthi (0.02), Bhadaus (1.22), ), Bhadausi (0.25), Bhadeli (0.08), Bhalua (0.16), Bihta (0.20), Birdaban (0.06), Bitha\* (0.01), Chewara (0.16), Chhatiaini (0.02), Chakandara (0.26), Chheman (0.01), Charuanwan (0.01), Chaunr Dargah (0.13), Chak Maldah (0.03), Chanre (0.24), Chak Usman\* (0.05), Chak Wasia\* (0.01), Charihari (0.24), Chhatiaini (0.02), Chheman (0.01), Chhotki Milki\* (0.00), Diha (0.41), Dhanuki (0.01), Dhanaul (0.03), Dumri (0.10), Deole (0.40), Dhaunsa (0.37), Dihri (0.25), Dullapur (0.19), Daria Chak (0.14), Dharsani (0.07), Dih Nazimat (0.05), Dharampur (0.01), Ekraman (0.01), Eksari (0.44), Esmailpur (0.17), Faridpur (0.12), Fatehpur (0.11), Gohda (0.30), Gagari (0.02), Gunesa (0.02), Gangti (0.14), Gokhulpur (0.02), Gawa (0.05), Gangaur (0.32), Gobindpur\* (0.00), Hathiawan (0.00), Haidar Chak Kita Doem (0.04), Haidar Chak (0.10), Husenabad (0.01), Intahara (0.01), Jamuwara (0.01), Jodhan Bigha (0.08), Jalalpur Nimi\* (0.04), Jaimangla (0.05), Jangipur (0.08), Jahangirpur Urf Madhepur (0.14), Jagdispur (0.05), Karki (0.08), Katnikol (0.14), Kamalgarh (0.10), Karman Chak (0.09), Kamasi (0.11), Kemra (0.00), Kusekher (0.14), Khetalpura (0.00), Konand (0.00), Kamalpur (0.18), Kosra (1.04), Kusmha (0.93), Kariho (0.01), Kaithawan (0.57), Kare (0.31), Keoti (0.12), Khalil Chak (0.10), Katari (0.28), Khoja Gachhi (0.21), Korawan (0.20), Kurauni (0.07), Kutaut (0.33), Kuseri (0.21), Lakhnu Bigha (0.01), Lohan (0.61), Lodipur (0.08), Mane (0.26), Maninda (0.50), Manana (0.19), Madari (0.45), Mahsar (0.17), Maharath (0.01), Maldah (1.38), Mankaul (0.17), Matokhar (0.65), Mahamda (0.07), Mahuli (0.12), Misia (0.29), Milki\* (0.06), Mirzapur (0.29), Milki Chak (0.05), Mian Bigha (0.13), Mohammadpur Nimi (0.05), Murgia Chak (0.11), Narainpur\* (0.04), Nasratpur\* (0.28), Naurozpur (0.04), Nabinagar Kakrar (0.02), Nimi (0.87), Nirpur (0.04), Noni (0.05), Othma (0.20), Pachnan (0.74), Pain (0.82), Paigambarpur (0.21), Paharia (0.09), Panhesa (0.05), Ptraita (0.04), Pandhar (0.11), Pathraita (0.05), Pind (0.02), Pinjri (0.17), Punesra (0.00), Puraina (0.01), Puran Kanwa (0.16), Ranka (0.18), Rajoura (0.21), Ramraipur\* (0.02), Ramraipur (0.17), Ramraipur Buzurg\* (0.05), Rauta (0.02), Raundi (0.12), Raundaphar (0.05), Rajauli (0.15), Rampur (0.04), Rewara Jagdishpur (0.01), Rudasi (0.15), Sarari (0.04), Sadikpur (0.26), Sagaman (0.00), Sanwar\* (0.15), Sanaia (0.01), Sanwas (0.60), Saraia (0.00), Sarba (0.67), Sheikhpura (1.61), Shekhupursarai (0.25), Shekhpurwa (0.06), Singhaul (0.01), Sohdi (0.27), Sugia (0.05), Surdaspur (0.32), Subhanpur Kaseri Chak (0.06), Tetarpur (0.02), Toi (0.06), Uganwan (0.01), Ukhdi (0.04), Unaman (0.36), Usari (0.00) |
| Good (55.84%) | Abe Badshahpur (0.01), Afardih (0.24), Aijhi (0.23), Akauna (0.02), Amanwan (0.30), Amarpur (0.13), Amari (0.86), Ahmadpur (0.01), Amanatpur (0.21), Amba Bigha (0.05), Andauli (0.31), Angpur (0.07), Anjanpokhar (0.05), Ariari (0.00), Asthana (0.32), Audhe (0.13), Barari (0.07), Bhadaus (0.00), Bhanpur (0.07), Barma (0.35), Bari Milki\* (0.07), Ballapur\* (0.00), Barbigha (1.95), Basant (0.14), Baikathpur (0.08), Bakarpur Bank (0.07), Baijnathpur (0.01), Babhan Bigha (0.05), Baruna (0.52), Bahuwara (0.01), Bariarpur\* (0.04), Baruni (0.10), Barsa (0.64), Barokhar\* (0.05), Badshahpur (0.10), Belar (0.13), Belchhi (0.08), Belao (0.09), Belauni (0.67), Belkhundi (0.21), Bhairo Bigha (0.01), Bhadausi (0.05), Bhadarthi (0.15), Bhojdih (0.38), Bahadurpur (0.06), Bhat Chak (0.03), Birnanwan (0.32), Birdaban (0.34), Biskorwa\* (0.01), Baih Katta (0.00), Chewara (0.38), Chak Abgil (0.21), Chakdhi (0.15), Chanre (0.27), Chak Dewara\* (0.02), Chheman (0.15), Chorbar (0.76), Charuanwan (0.26), Chak Wasia\* (0.02), Chakandara (0.42), Chitaura (0.16), Chhatiaini (0.04), Charuanwan (0.26), Chainpur Dih (0.09), Chak Suja\* (0.05), Chak Maldah (0.01), Chaunr Dargah (0.88), Datuara (0.12), Derhgaon (0.16), Deopuri (0.08), Dewara (0.41), Diha (0.09), Dhanuki (0.12), Daudpur Itwa (0.16), Dharahra (0.32), Dhaunsa (0.05), Dhamasi\* (0.06), Dhankaul (0.26), Dharampur (0.13), Dhanaul (0.02), Dhonrah (0.03), Dih Nazimat (0.16), Dumri\* (0.07), Eksari (0.02), Ekarha (0.63), Ekraman (0.45), Esmailpur (0.08), Efni (1.35), Esmailpur (0.08), Fatehpur (0.01), Fatehpur\* (0.06), Faridpur (0.10), Gangapur (0.35), Gadbadia (0.31), Gokhulpur (0.05), Gadua (0.28), Gagaura (0.05), Gagari (0.42), Gangaur (0.62), Gunesa (0.15), Gurera (0.24), Gawa (0.96), Harganwan (0.15), Hansauri (0.12), Hathiawan (0.28), Hazratpur Mandrochani (0.70), Husenabad (0.00), Ikraen (0.25), Intahara (0.20), Isua (0.38), Isapur (0.12), Jangipur (0.04), Jamuwara (0.01), Jagjiwanpur (0.02), Jagdispur (0.08), Jodhan Bigha (0.09), Jasat (0.10), Jakhaur (0.43), Jagdishpur (0.27), Kaitha (0.05), Kabirpura (0.16), Kariho (0.14), Kanhauli (0.20), Kemra (0.11), Keoti (0.38), Katari (0.54), Kasar (1.45), Kare (0.01), Kamalpur (0.05), Kamasi (0.61), Kaithawan (0.37), Kamta\* (0.01), Khetalpura (0.05), Khurampur (0.10), Konand (0.36), Khoja Gachhi (0.03), Koiri Bigha (0.10), Korawan (0.04), Koila (0.02), Kutra (0.11), Kusekher (0.05), Kusmaha (0.86), Kurauni (0.36), Khuria (0.14), Kusmha (0.79), Kuseri (0.29), Kazi Fatu Chak (0.07), Latkana (0.41), Lachhna (0.12), Lakhnu Bigha (0.28), Lodipur (0.71), Lohan (0.92), Maniauri (0.40), Maninda (0.05), Malawan (0.04), Mahuet (0.43), Mahuli (0.10), Mapho (1.04), Mankaul (0.03), Manipur Aima (0.22), Maira Barith (0.01), Mehuns (1.16), Mirnagar (0.19), Milki\* (0.00), Milki (0.02), Milki Chak (0.06), Mai (0.09), Manana (0.05), Manipur Sarsikan\* (0.13), Moti Bigha (0.06), Mohabbatpur (0.38), Mobarakpur (0.30), Matokhar (0.21), Masora (0.64), Maldah (0.08), Mohsimpur (0.09), Murgia Chak (0.09), Musapur (0.01), Nabinagar Kakrar (0.01), Naurozpur (0.08), Nepura\* (0.05), Noni (0.13), Noanwan (0.08), Oraia (0.38), Palni (0.12), Pain (0.11), Panhesa (0.11), Pank (0.36), Panchi (1.17), Patraita (0.02), Patrahta (0.17), Paigambarpur (0.05), Parbati (0.01), Pind (0.12), Pinjri (0.27), Pojh (0.07), Punesra (0.23), Puran Kanwa (0.05), Rais (0.01), Rankar (0.10), Rasulpur (0.12), Rasulpur\* (0.09), Rajpur\* (0.09), Rasul Chak\* (0.01), Raundi (0.26), Rajaur (0.51), Rewar (0.00), Ramraipur (0.00), Rauta (0.19), Rahincha (0.05), Rudasi (0.06), Sakuchi (0.03), Sarbahadi (0.14), Sasbahana Ghuskuri (0.90), Sasaur (0.34), Sadikpur (0.02), Sanaia (0.86), Sasranwan (0.10), Sarmanan (0.10), Saraia (0.17), Samastipur (0.03), Sarari (0.23), Salempur Teldih (0.23), Sahnaura (0.24), Sahra Bataura (0.42), Sanwar\* (0.04), Sanwas (0.86), Sheikhpura (0.59), Shekhupursarai (0.04), Singhaul (0.01), Sohdi (0.03), Sonpahari\* (0.09), Sultanpur (0.21), Surdaspur (0.02), Sugia (0.10), Sumka (0.22), Tanpura (0.02), Tetranwan (0.18), Teus (1.28), Tetarpur (0.16), Toi (0.38), Unaman (0.38), Ukaura (0.04), Uganwan (0.09), Ukhdi (0.26), Wairani (0.05) |
| Very Good (5.08%) | Abgil (0.04), Angpur (0.06), Bahadurpur\* (0.08), Barui (0.31), Bahuwara (0.30), Bari Milki\* (0.01), Bariarpur\* (0.05), Barma (0.00), Bagola\* (0.12), Bhojdih (0.01), Chak Batol\* (0.02), Chakandara (0.01), Chewara (0.70), Chak Ambia\* (0.08), Eksari (0.05), Chanre (0.08), Chewara (0.70), Gagari (0.01), Garaia\* (0.07), Gunesa (0.04), Hansauri (0.01), Jamuwara (0.07), Kaithawan (0.15), Katnikol (0.01), Khurrampur (0.26), Kusmha (0.83), Korawan (0.15), Kunda (0.15), Nirpur (0.16), Pachnan (0.28), Pathraita (0.04), Pind (0.06), Puraina (0.82), Rankar (0.01), Rajauli (0.01) |