**EXECUTIVE SUMMARY**

* Govt. provides top priority for protection of its people, animals, agricultural land, submergence and damage to crops etc. from fury of floods and accordingly Haryana State Drought Relief & Flood Control Board (HSDR&FCB) has been constituted to review and approve various flood and drainage works in the state every year before on set of monsoon.
* In Haryana, main threat of flooding is always there from Ghaggar, Tangri and Markanda rivers and thus every year the damages done by floods in prior year are looked into and remedial measures are taken in the form of flood protection schemes etc.
* It is informed that, Markanda River originates from Kala Amb and runs through via Mulana, Shahbad, Jhansa & Jalbhera and ultimately merges in the Ghaggar River in Cheeka area.
* The length of Markanda River in District Kurukshtera is 55.91 KM i.e. from village Damli (Shahbad) to near village Karah Sahib (Pehowa).
* The bunds on left side exist in a length of 51.36 km & on right side in a length of 33.87 km for safety of nearby village abadi and agriculture land.
* The right bund does’nt exist in villages Mugal Majra, Kathwa, Jharoli Khurd and Tangor. Also there exists gap in between RMB D/S Jhansa and Thaska bund i.e. in village Thaska Miranji. Further this bund doesnt exist D/s Hisar–Ambala Road upto start of Naisi bund. After Naisi Bund the NSLs are high.
* Along Markanda river, there are important stations where gauges are installed to measure the danger level of River flow i.e. i.e. at Shahbad, Jhansa and Jalbera. The danger levels at these gauge points have been fixed according to the return period of floods. The maximum danger level at Gauge point Shahbad is 45000 Cs and that of Jhansa is 8416 Cs.
* Maximum discharge received at Shahbad was 38419 Cs during year 1978, which was below the danger mark and maximum discharge received at Jhansa was 10409 Cs during year 2010. However, this year i.e. during July, 2023, Haryana has faced devastating floods and the maximum discharge received at Shahbad was 49522 Cs. and that at Jhansa was 13018 Cs on dated 10/07/2023 and at both the places the river flow was above danger mark.
* The discharge in river Markanda remains much below the danger level during the normal flows, it is only during the devastating flood situation when the flow in Markanda crosses the danger mark. During rainy season the flood water of Markanda river sometimes hit the abadi and agriculture land of villages situated along the river due to gaps in the existing embankments.
* This year around 3000 Acres area was submerged on right side of Markanda river where no bund exist in Kuruksherta District and some area of Village Hema Majra and Ghallery was submerged but it drained out when the level in Markanda receeded.
* For the protection of abadi and agricultural land etc. from flood, the flood protection works every year are executed as per requirement after surveying the area and getting concurrence of schemes/flood protection works from DC and approval of Haryana State Technical Advisory Committee (HSTAC) and then Haryana State Drought Relief & Flood Control Board (HSDR&FCB).
* During 2017 flood works amounting to Rs. 29.25 lacs, during 2018 for Rs. 79.08 lacs, during 2019 for Rs 44.72 lacs, during 2020 for Rs. 283.79 lacs, during 2021 for Rs 54.28 lacs, 2022 for Rs. 26.49 lakhs were executed on protection and strengthening of bunds of Markanda River.
* In the last i.e. 54th meeting of HSDR&FCB a scheme for the protection of abadi and agriculture land of village Ghallery of Mullana Constituency costing Rs. 34.03 lakhs has been approved and the agreement stands signed. Work is likely to start in October, 2023.
* For prevention and safe passage of floods the internal clearance of all the drains is being done regularly before onset of monsoon which also contribute to the early clearance of accumulated flood water in the area if any.
* It is further stated that on demand of villagers, a scheme for the extension of LMB Markanda bundh up stream Ambala-Saharanpur Railway Line from RD 13820 to 21420 (7600 ft) was proposed for the protection of village Hema Majra, Ghallery and Suhana and the same was approved in the 46th meeting of HSDR&FCB in the year 2015. But the land owners did not provide 11.58 acre land which was required for execution of the scheme and accordingly the scheme was dropped by Govt. Due to non construction of this bundh, during excess flows, the flood water enters in this area and further drains out into the river Markanda as and when the level of water reduces in river.Now, the farmers are ready to give their land for construction of the Bund.
* At present there is no proposal under consideration of the Government for carrying out the work of digging and cleaning of the Markanda river, as the Rivers are of meandering nature and have no defined section like channels and Drains.
* Further the annual action plans of cleaning and digging of channels and drains are made and not of rivers. Sometimes during devastating floods, the Highest Flood level/danger mark is breached due to receipt of extra water which is accommodated in the free board.
* The flooding occurred due to gaps in the existing bunds, as the bunds are never constructed for 100% length of river, whereas for channels and Drains, 100% embankment is undertaken after land acquisition. The river land belong to private land owners and is never acquired. Moreover, bunds along the river are only constructed in that length wherever the river flows near the abadi area for its protection and where land is made available by the farmers.
* Earlier proposals were approved by the Govt. to plug the gaps in existing bunds and prevent the flooding, but it could not mature due to reluctance of land owners who did not give their land. However, now the Government is planning for cleaning and desilting of rivers wherever required, by co-ordinating with the Mining Department and also construct the bunds as per requirement/demand after assessing availability.

**Note for PAD**

**Starred Assembly Question No. 22**

Govt. provides top priority for protection of its people, animals, agricultural land, submergence and damage to crops etc. from fury of floods and accordingly Haryana State Drought Relief & Flood Control Board (HSDR&FCB) has been constituted to review and approve various flood and drainage works in the state every year before on set of monsoon. In Haryana, main threat of flooding is always there from Ghaggar, Tangri and Markanda rivers and thus every year the damages done by floods in prior year are looked into and remedial measures are taken in the form of flood protection schemes etc.

Coming to the Vidhan Sabha Question it is informed that Markanda River originates from Kala Amb and runs through via Mulana, Shahbad, Jhansa & Jalbhera and ultimately merges in the Ghaggar River in Cheeka area. The length of Markanda River in District Kurukshtera is 55.91 KM i.e. from village Damli (Shahbad) to near village Karah Sahib (Pehowa). The bunds on left side exist in a length of 51.36 km & on right side in a length of 33.87 km for safety of nearby village abadi and agriculture land. The right bund doesnt exist in villages Mugal Majra, Kathwa, Jharoli Khurd and Tangor. Also there exists gap in between RMB D/S Jhansa and Thaska bund i.e. in village Thaska Miranji. Further this bund don’t exist D/s Hisar –Ambala Road upto start of Naisi bund. After Naisi Bund the NSLs are high. 03 nos. gauge points exists on the said river i.e. at Shahbad, Jhansa and Jalbera.

Along Markanda river, there are important stations where gauges are installed to measure the danger level of River flow i.e. i.e. at Shahbad, Jhansa and Jalbera. The danger levels at these gauge points have been fixed according to the return period of floods. The maximum danger level at Gauge point Shahbad is 45000 Cs and that of Jhansa is 8416 Cs.

Maximum discharge received at Shahbad was 38419 Cs during year 1978, which was below the danger mark and maximum discharge received at Jhansa was 10409 Cs during year 2010. However, this year i.e. during July, 2023, Haryana has faced devastating floods and the maximum discharge received at Shahbad was 49522 Cs. and that at Jhansa was 13018 Cs on dated 10/07/2023 and at both the places the river flow was above danger mark.

The discharge in river Markanda remains much below the danger level during the normal flows, it is only during the devastating flood situation when the flow in Markanda crosses the danger mark. During rainy season the flood water of Markanda river sometimes hit the abadi and agriculture land of villages situated along the river due to gaps in the existing embankments. This year around 3000 Acres area was submerged on right side of Markanda river in Kuruksherta District and some area of Village Hema Majra and Ghallery was submerged but it drained out when the level in Markanda receded.

For the protection of abadi and agricultural land etc. from flood, the flood protection works every year are executed as per requirement after surveying the area and getting concurrence of schemes/flood protection works from DC and approval of Haryana State Technical Advisory Committee (HSTAC) and then Haryana State Drought Relief & Flood Control Board (HSDR&FCB). During 2017 flood works amounting to Rs. 29.25 lacs, during 2018 for Rs. 79.08 lacs, during 2019 for Rs 44.72 lacs, during 2020 for Rs. 283.79 lacs, during 2021 for Rs 54.28 lacs, 2022 for Rs. 26.49 lakhs were executed on protection and strengthening of bunds of Markanda River. Also, in the last i.e. 54th meeting of HSDR&FCB a scheme for the protection of abadi and agriculture land of village Ghallery of Mullana Constituency costing Rs. 34.03 lakhs has been approved and the agreement stands signed. Work is likely to start in October, 2023.

For prevention and safe passage of floods the internal clearance of all the drains is being done regularly before onset of monsoon which also contribute to the early clearance of accumulated flood water in the area if any.

It is further stated that on demand of villagers, a scheme for the extension of LMB Markanda bundh up stream Ambala-Saharanpur Railway Line from RD 13820 to 21420 (7600 ft) was proposed for the protection of village Hema Majra, Ghallery and Suhana and the same was approved in the 46th meeting of HSDR&FCB in the year 2015. But the land owners did not provide 11.58 acre land which was required for execution of the scheme and accordingly the scheme was dropped by Govt. Due to non construction of this bundh, during excess flows, the flood water enters in this area and further drains out into the river Markanda as and when the level of water reduces in river. Now, the farmers are ready to give their land for construction of the Bund.

At present there is no proposal under consideration of the Government for carrying out the work of digging and cleaning of the Markanda river, as the Rivers are of meandering nature and have no defined section like channels and Drains.

Further the annual action plans of cleaning and digging of channels and drains are made and not of rivers. Sometimes during devastating floods, the Highest Flood level/danger mark is breached due to receipt of extra water which is accommodated in the free board.

The flooding occurred due to gaps in the existing bunds, as the bunds are never constructed for 100% length of river, whereas for channels and Drains, 100% embankment is undertaken after land acquisition. The river land belong to private land owners and is never acquired. Moreover, bunds along the river are only contsructed in that length wherever the river flows near the abadi area for its protection and where land is made available by the farmers.

Earlier proposals were approved by the Govt. to plug the gaps in existing bunds and prevent the flooding, but it could not mature due to reluctance of land owners who did not give their land. However, now the Government is planning for cleaning and desilting of rivers wherever required, by co-ordinating with the Mining Department and also construct the bunds as per requirement/demand after assessing availability.

**पैड के लिए नोट**

**विधानसभा तारांकित प्रश्न संख्या 22**

सरकार लोगों, जानवरों, फसलों और कृषि भूमि, आदि को बाढ़ के प्रकोप से बचाने के लिए सुरक्षा को शीर्ष प्राथमिकता प्रदान करती है और इसी के तहत हरियाणा राज्य सूखाराहत और बाढ़ नियंत्रण बोर्ड (HSDR&FCB) की स्थापना की गई है ताकि राज्य में हर वर्ष मानसून की प्रारंभिकता से पहले विभिन्न बाढ़ और ड्रेनों के कामों की समीक्षा और मंजूरी की जा सके। हरियाणा में बाढ़ का मुख्य खतरा घग्गर, टांगरी और मारकंडा नदियों के साथ लगते गांवों में हमेशा बना रहता है और इस प्रकार हर साल पिछले वर्ष बाढ़ से हुए नुकसान पर ध्यान दिया जाता है और बाढ़ सुरक्षा योजनाओं आदि के रूप में उपचारात्मक उपाय प्रस्तुत किये जाते है ।

मारकंडा नदी की उत्पत्ति काला अंब से होती है और यह मुलाना, शाहबाद, झांसा और जलबहेड़ा से होती हुई बहती है और अंत में चीका क्षेत्र में घग्गर नदी में मिल जाती है। कुरुक्षेत्र जिले में मारकंडा नदी की लंबाई 55.91 किमी है, जोकि गांव दामली (शाहबाद) से गांव कराह साहिब (पेहोवा) के पास तक है। निकटवर्ती गांवों की आबादी एवं कृषि भूमि की सुरक्षा के लिए मारकण्डा नदी के बाईं ओर के बंधों की कुल लम्बाई 51.36 किमी और दाएं ओर के बंधों की कुल लंबाई 33.87 किमी है। मुगल माजरा, कठवा, झारोली खुर्द और टंगोर आदि गांव में दाएं ओर बंध मौजूद नहीं है। इसके अलावा, आरएमबी डाउनस्ट्रीम झांसा और ठसका बंध यानि गांव ठस्का मिरांजी के बीच में खाली जगह मौजूद है, जिसमें बंध नहीं है। इसके अलावा, नैसी बंध की शुरुआत से डाउनस्ट्रीम हिसार-अंबाला रोड तक कोई भी बंध मौजूद नहीं है। नैसी बंध के बाद एनएसएल ऊंचे हैं। उक्त नदी पर 3 गेज प्वाईंट यानी शाहबाद, झांसा और जलबहेड़ा पर मौजूद हैं।

मारकंडा नदी के किनारे, महत्वपूर्ण स्टेशन हैं जहां नदी के प्रवाह के खतरे के स्तर को मापने के लिए गेज स्थापित किए गए हैं यानी शाहबाद, झांसा और जलबहेड़ा में। इन गेज प्वाइंट पर खतरे का स्तर पिछले वर्षों की बाढ़ के सर्वोच्च स्तर के अनुसार तय किया जाता है। गेज प्वाइंट शाहबाद पर अधिकतम खतरे का स्तर 45000 क्यूसेक है और झांसा पर 8416 क्यूसेक है।

वर्ष 1978 के दौरान शाहबाद में अधिकतम प्रवाह 38419 क्यूसेक था, जो खतरे के निशान से नीचे था और वर्ष 2010 के दौरान झांसा में अधिकतम प्रवाह 10409 क्यूसेक था। हालांकि, इस साल यानि जुलाई 2023 के दौरान, हरियाणा को विनाशकारी बाढ़ का सामना करना पड़ा और दिनांक 10 जुलाई, 2023 को शाहबाद में अधिकतम रिकॉर्ड प्रवाह 49522 क्यूसेक और झांसा में 13018 क्यूसेक प्राप्त हुआ। दोंनों स्थानों पर नदी खतरे के निशान से उपर बह रही थी।

सामान्य प्रवाह के दौरान मारकण्डा नदी का बहाव खतरे के स्तर से काफी नीचे रहता है। यह केवल विनाशकारी बाढ़ की स्थिति के दौरान ही होता है कि मारकण्डा नदी के बहाव खतरे के निशान को पार करे। बरसात के मौसम में मारकण्डा नदी से बाढ़ का पानी कभी- कभी मौजूदा तटबंधों के बीच खाली जगह से नदी के किनारे स्थित आबादी एवं कृषि भूमि को प्रभावित करता है। इस वर्ष कुरूक्षेत्र जिले में मारकण्डा नदी के दाहिनी ओर लगभग 3000 एकड़ क्षेत्र जलमग्न हो गया था तथा हेमामाजरा तथा घालेरी गांव का कुछ क्षेत्र जलमग्न हो गया था लेकिन मारकण्डा नदी का जल स्तर कम होने पर पानी प्राकृतिक रूप से मारकण्डा नदी में निकल गया।

आबादी और कृषि भूमि की बाढ़ से सुरक्षा के लिए, प्रत्येक वर्ष क्षेत्र की सर्वेक्षण के बाद आवश्यकता के अनुसार बाढ़ संरक्षण कार्य किए जाते हैं और जिलाधिकारी की सहमति और हरियाणा राज्य तकनीकी सलाहकार समिति (HSTAC) की मंजूरी प्राप्त करने के बाद और फिर हरियाणा राज्य सूखाराहत और बाढ़ नियंत्रण बोर्ड (HSDR&FCB) की मंजूरी से योजनाएँ /बाढ़ संरक्षण कार्य कार्यान्वित किए जाते हैं। 2017 में 29.25 लाख रुपये के बाढ़ राहत के कार्य, 2018 में 79.08 लाख रुपये के, 2019 में 44.72 लाख रुपये के, 2020 में 283.79 लाख रुपये के, 2021 में 54.28 लाख रुपये के, और 2022 में 26.49 लाख रुपये के कार्य मारकंडा नदी के बंधों की सुरक्षा और मजबूती के लिए किए गए थे। इसके अलावा, हाल ही में आयोजित 54वीं HSDR&FCB की बैठक में मुलाना विधानसभा क्षेत्र के गांव घालेरी की आबादी और कृषि भूमि की सुरक्षा के लिए एक योजना को मंजूरी दी गई है जिसका खर्च 34.03 लाख रुपये है, इस काम की विभागीय कार्यवाही अमल में लाई जा चुकी है तथा कार्य अक्टूबर, 2023 में शुरू होने की संभावना है।

बाढ़ को रोकने के लिए मानसून के आरंभ से पहले सभी बरसाती ड्रेनों की आंतरिक सफाई को नियमित रूप से किया जाता है, जोकि किसी क्षेत्र में जलभराव के पानी को समय पर निकालने में सहायक होता है।

आगे यह सूचित किया जाता है कि गांव वालों की मांग पर, मारकण्डा बंध की बाएं तट बंध (LMB) (स्थानीय बंध) को अंबाला-साहरनपुर रेलवे लाईन तक विस्तारित करने की योजना बुर्जी संख्या 13820 से 21420 (7600 फुट) गांव हेमा माजरा, घालेरी और सुहाना की सुरक्षा के लिए प्रस्तावित की गई थी, और यह कार्य वर्ष 2015 में हुई 46वीं HSDR&FCB की बैठक में स्वीकृत हुआ था। लेकिन इसके लिए आवश्यक 11.58 एकड़ जमीन किसानो द्वारा प्रदान नहीं की गई जो योजना को कार्यान्वित करने के लिए आवश्यक थी। इस बंध का निर्माण न होने से, कभी-कभी बाढ़ का पानी इस क्षेत्र में प्रवेश कर जाता है और जब मारकंडा नदी में पानी का स्तर कम होता है, तो यह पानी वापिस नदी की ओर बह जाता है। अब किसान बंध निर्माण के लिए अपनी जमीन देने को तैयार हैं।

वर्तमान में मारकण्डा नदी की खुदाई और सफाई के कार्य करने का कोई प्रस्ताव सरकार के विचाराधीन नहीं है, क्योंकि यह नदी घुमावदार प्रकृति की है और इसका चैनलों और ड्रेनों की तरह कोई परिभाषित सैक्शन नहीं है।

इसके अतिरिक्त, चैनलों और ड्रेनों की सफाई और खुदाई की वार्षिक कार्य योजना बनाई जाती है, नदियों के लिए नहीं बनाई जाती। कभी-कभी विनाशकारी बाढ के दौरान, अतिरिक्त पानी आने के कारण उच्चतम बाढ़ स्तर/खतरे का निशान टूट जाता है, जिसे फ्री बोर्ड में समायोजित किया जाता है।

मौजूदा बंधों में अंतराल के कारण बाढ़ आई क्योंकि नदी की 100 प्रतिशत लम्बाई के लिए कभी भी बंध नहीं बनाए जाते हैं, जबकि चैनलों और ड्रेनों के लिए भूमि अधिग्रहण के बाद 100 प्रतिशत तटबंध बनाए जाते हैं। नदी की भूमि निजी भू-मालिकों की है और इसका कभी भी अधिग्रहण नहीं किया जाता है। इसके अलावा, नदियों के साथ बंध केवल उसी लम्बाई में बनाए जाते है जहाँ नदी आबादी क्षेत्र के पास बहती है जिससे उस आबादी क्षेत्र की सुरक्षा हो सके और इसके लिए किसानों द्वारा भूमि उपलब्ध कराई जाती है।

मौजूदा बंधों में खाली जगहों को भरने और बाढ़ को रोकने के लिए सरकार द्वारा पहले प्रस्तावों को अनुमोदित किया गया था, लेकिन भू-मालिकों की जमींन नहीं देने के कारण यह सम्भव नहीं हो सका। हालांकि, अब सरकार खनन विभाग के माध्यम से जहां भी आवश्यक हो, नदियों की सफाई और गाद निकालने की योजना बनाई जा रही है और उपलब्धता का आंकलन करने के बाद आवश्यकता/मांग के अनुसार बंधो का निर्माण किया जाएगा।



