

# Sea Area Monitoring

February 25, 2022

Nuclear Regulation Authority (NRA), Japan

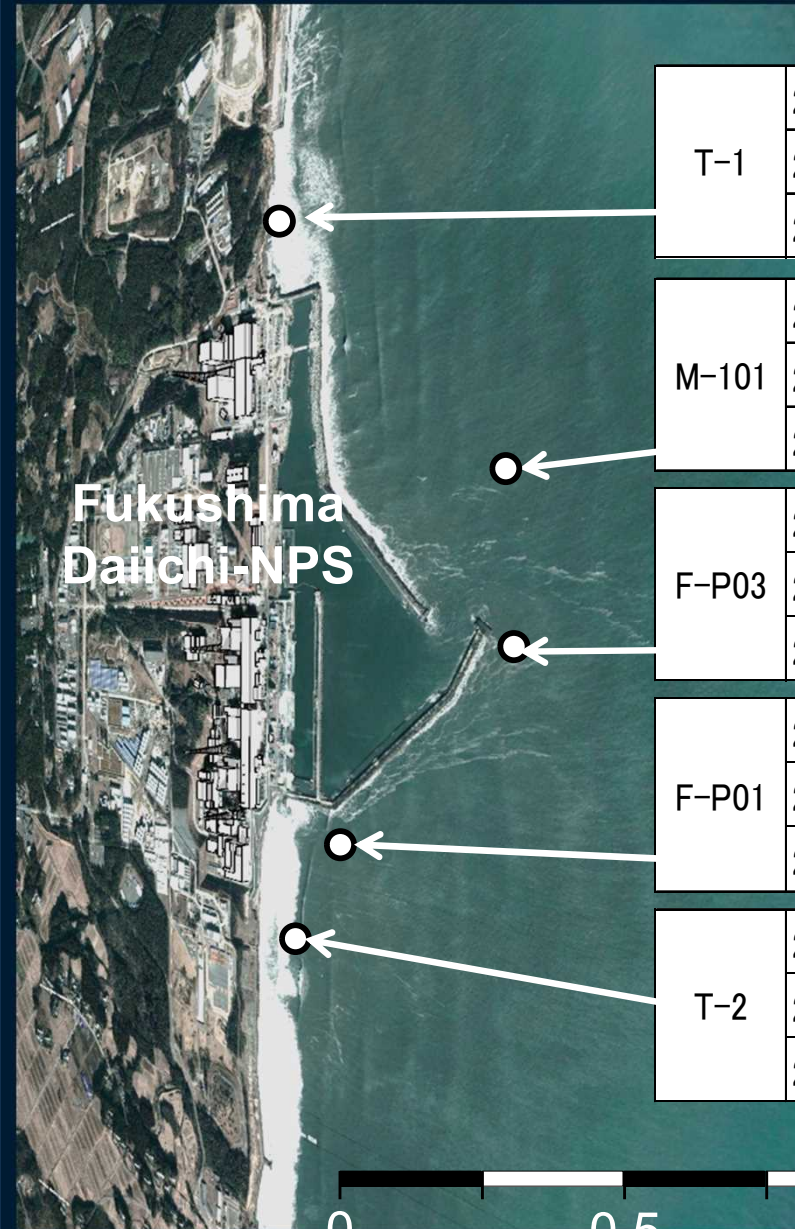
# The most recent radioactivity data of sea area within 2km from the NPS

| Sampling point | Sampling Date | Cs-134 | Cs-137 | Gross $\beta$ | H-3 | Sr-90 | Gross $\alpha$ | Pu-238 | Pu-239+Pu-240 |
|----------------|---------------|--------|--------|---------------|-----|-------|----------------|--------|---------------|
|----------------|---------------|--------|--------|---------------|-----|-------|----------------|--------|---------------|

Seawater radioactivity (Bq/L):

ND: Not detected; Numbers in parentheses: detection limits

\* 1 : Gross  $\beta$ : including K-40      \* 2 : Gross  $\beta$ : excluding K-40



|       |            |             |       |                    |          |         |         |                          |                          |
|-------|------------|-------------|-------|--------------------|----------|---------|---------|--------------------------|--------------------------|
| T-1   | 2021/11/1  | 0.0041      | 0.12  | 13 <sup>*1</sup>   | 0.89     | 0.011   | ND(1.9) |                          |                          |
|       | 2021/12/6  | 0.0043      | 0.13  | 11 <sup>*1</sup>   | ND(0.84) | 0.0062  | ND(1.9) |                          |                          |
|       | 2022/1/3   | 0.0015      | 0.04  | 11 <sup>*1</sup>   | ND(0.90) | 0.0036  | ND(1.9) |                          |                          |
| M-101 | 2021/11/5  | ND(0.00048) | 0.017 |                    | 0.052    | 0.00088 |         |                          |                          |
|       | 2021/12/15 | 0.00087     | 0.025 |                    |          |         |         |                          |                          |
|       | 2022/1/13  | 0.0010      | 0.030 |                    |          |         |         |                          |                          |
| F-P03 | 2021/8/4   | 0.004       | 0.12  | 0.01 <sup>*2</sup> | 0.34     | 0.0046  |         | ND( $7 \times 10^{-6}$ ) | 0.000008                 |
|       | 2021/9/2   | 0.010       | 0.31  | 0.03 <sup>*2</sup> | 1.4      | 0.035   |         | ND( $8 \times 10^{-6}$ ) | ND( $7 \times 10^{-6}$ ) |
|       | 2021/10/15 | 0.006       | 0.12  | 0.02 <sup>*2</sup> | ND(0.37) | 0.0076  |         | ND( $6 \times 10^{-6}$ ) | 0.000009                 |
| F-P01 | 2021/8/4   | ND(0.003)   | 0.015 | 0.02 <sup>*2</sup> | ND(0.32) | 0.0008  |         | ND( $7 \times 10^{-6}$ ) | ND( $9 \times 10^{-6}$ ) |
|       | 2021/9/2   | ND(0.003)   | 0.020 | 0.01 <sup>*2</sup> | ND(0.33) | 0.0015  |         | ND( $7 \times 10^{-6}$ ) | ND( $7 \times 10^{-6}$ ) |
|       | 2021/10/15 | ND(0.002)   | 0.028 | 0.02 <sup>*2</sup> | ND(0.36) | 0.0011  |         | ND( $9 \times 10^{-6}$ ) | ND( $9 \times 10^{-6}$ ) |
| T-2   | 2021/11/1  | 0.0015      | 0.038 | 12 <sup>*1</sup>   | ND(0.88) | 0.0020  | ND(1.9) |                          |                          |
|       | 2021/12/6  | 0.0014      | 0.048 | 9.8 <sup>*1</sup>  | ND(0.84) | 0.0019  | ND(1.9) |                          |                          |
|       | 2022/1/3   | 0.0020      | 0.059 | 8.6 <sup>*1</sup>  | ND(0.90) | 0.0019  | ND(1.9) |                          |                          |

0      0.5      1km

# Most recent radioactivity data of sea area between 2-20km from the NPS

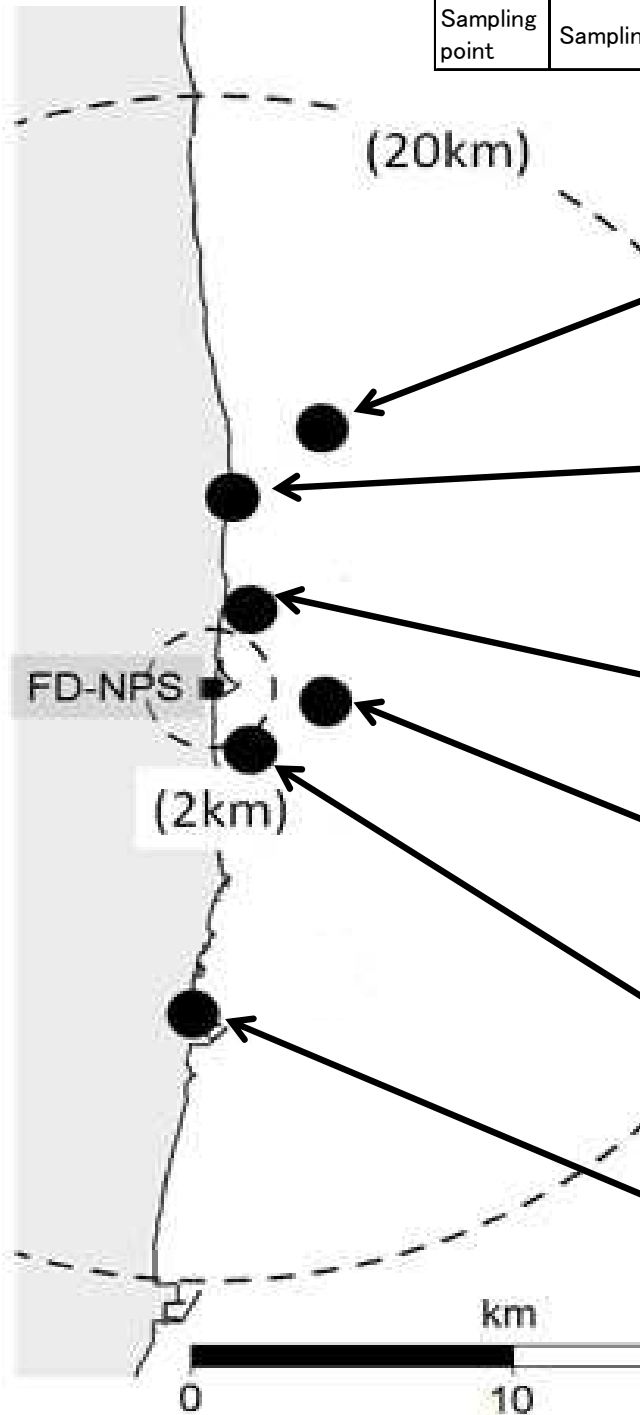
| Sampling point | Sampling Date | Cs-134 | Cs-137 | Gross $\beta$ | H-3 | Sr-90 | Gross $\alpha$ | Pu-238 | Pu-239+240 | S | S:2m below sea level |
|----------------|---------------|--------|--------|---------------|-----|-------|----------------|--------|------------|---|----------------------|
|----------------|---------------|--------|--------|---------------|-----|-------|----------------|--------|------------|---|----------------------|

Seawater radioactivity (Bq/L):

ND: Not detected; Numbers in parentheses: detection limits

Gross  $\beta$  : including K-40

Depth(m) from sea level



|       |            |             |        |        |           |             |         |  |  |      |
|-------|------------|-------------|--------|--------|-----------|-------------|---------|--|--|------|
| T-D1  | 2021/11/1  | ND(0.0014)  | 0.0066 | ND(13) | ND(0.30)  | 0.00089     | ND(1.9) |  |  | S    |
|       | 2021/12/6  | ND(0.0012)  | 0.017  | 15     | ND(0.29)  | 0.0012      | ND(2.3) |  |  | S    |
|       | 2022/1/4   | ND(0.0011)  | 0.006  | ND(12) | ND(0.29)  | ND(0.00080) | ND(2.4) |  |  | S    |
| T-6   | 2021/11/2  | ND(0.0013)  | 0.018  | ND(13) | ND(0.29)  |             |         |  |  | S    |
|       | 2021/12/7  | 0.0017      | 0.037  | ND(14) | ND(0.29)  |             |         |  |  | S    |
|       | 2022/1/4   | ND(0.0013)  | 0.025  | ND(12) | 0.39      |             |         |  |  | S    |
| M-103 | 2021/11/5  | ND(0.00051) | 0.0082 |        |           | 0.15        | 0.00087 |  |  | 0.5m |
|       | 2021/12/15 | 0.00073     | 0.017  |        |           |             |         |  |  | 0.5m |
|       | 2022/1/13  | ND(0.00054) | 0.012  |        |           |             |         |  |  | 0.5m |
| T-D5  | 2021/11/1  | ND(0.0014)  | 0.0095 | ND(13) | ND(0.29)  | 0.0014      | ND(1.9) |  |  | S    |
|       | 2021/12/6  | ND(0.0011)  | 0.0084 | 16     | ND(0.29)  | 0.0022      | ND(2.3) |  |  | S    |
|       | 2022/1/4   | ND(0.0014)  | 0.0043 | ND(12) | ND(0.29)  | 0.0013      | ND(2.4) |  |  | S    |
| M-104 | 2021/11/4  | ND(0.00057) | 0.0047 |        | ND(0.049) | 0.00091     |         |  |  | 0.5m |
|       | 2021/12/14 | ND(0.00052) | 0.013  |        |           |             |         |  |  | 0.5m |
|       | 2022/1/15  | ND(0.00052) | 0.0034 |        |           |             |         |  |  | 0.5m |
| T-3   | 2021/11/2  | ND(0.0013)  | 0.025  | ND(13) | ND(0.29)  |             |         |  |  | S    |
|       | 2021/12/7  | ND(0.0014)  | 0.024  | 17     | ND(0.29)  |             |         |  |  | S    |
|       | 2022/1/4   | ND(0.0014)  | 0.016  | 20     | 0.38      |             |         |  |  | S    |

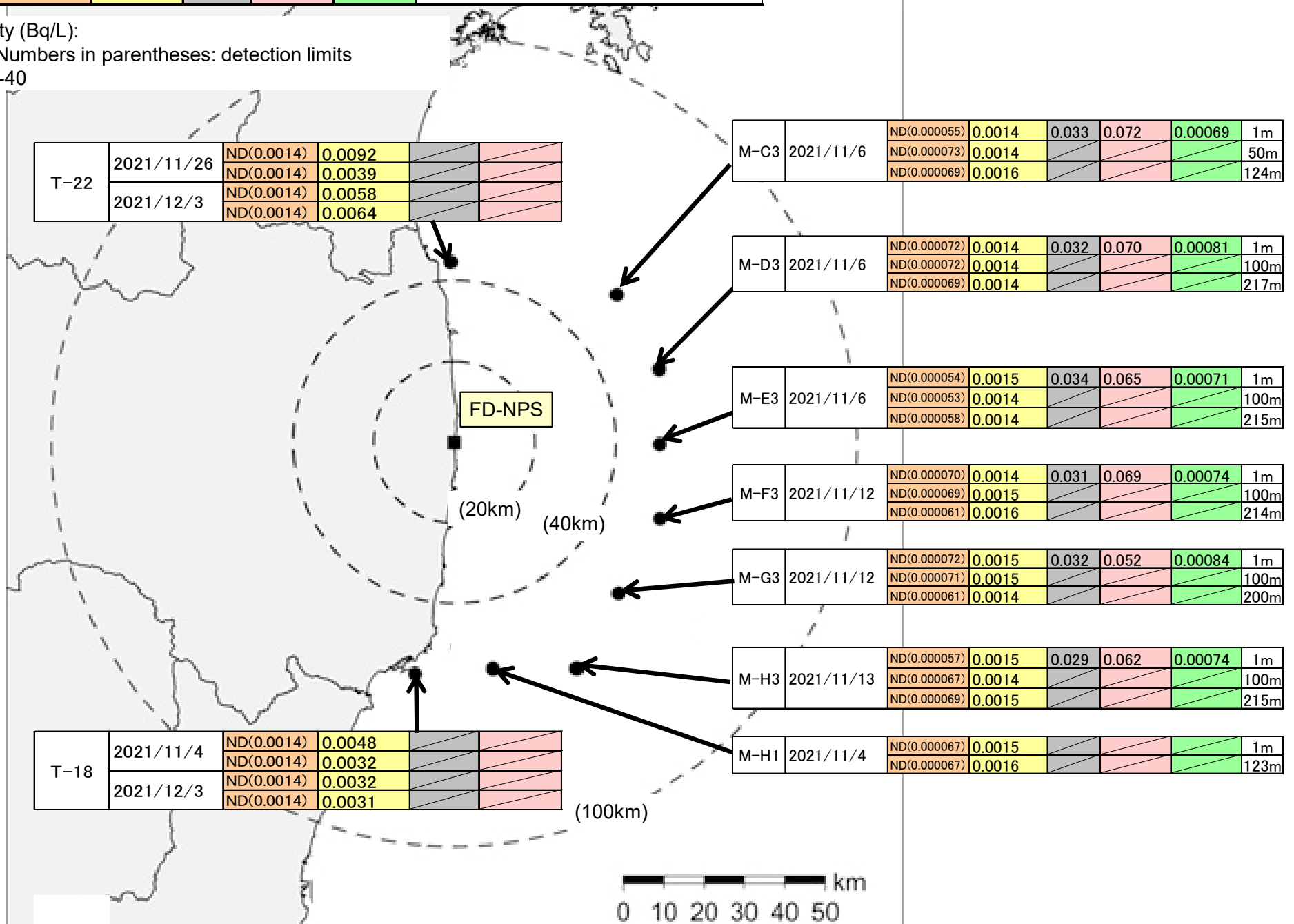
# Most recent radioactivity data of sea area between 40-100km from the NPS

| Sampling point | Sampling Date | Cs-134 | Cs-137 | Gross $\beta$ | H-3 | Sr-90 | S/B  |
|----------------|---------------|--------|--------|---------------|-----|-------|--|
|                |               |        |        |               |     |       | S:2m below sea level B:2-3m above sea bottom |
|                |               |        |        |               |     |       | Depth(m) from sea level                      |

Seawater radioactivity (Bq/L):

ND: Not detected; Numbers in parentheses: detection limits

Gross  $\beta$ : excluding K-40



| T-22 | 2021/11/26 | ND(0.0014) | 0.0092 |  |  |
|------|------------|------------|--------|--|--|
|      |            | ND(0.0014) | 0.0039 |  |  |
|      | 2021/12/3  | ND(0.0014) | 0.0058 |  |  |
|      |            | ND(0.0014) | 0.0064 |  |  |

| M-C3 | 2021/11/6 | ND(0.000055) | 0.0014 | 0.033 | 0.072 | 0.00069 | 1m |      |
|------|-----------|--------------|--------|-------|-------|---------|----|------|
|      |           | ND(0.000073) | 0.0014 |       |       |         |    | 50m  |
|      |           | ND(0.000069) | 0.0016 |       |       |         |    | 124m |

| M-D3 | 2021/11/6 | ND(0.000072) | 0.0014 | 0.032 | 0.070 | 0.00081 | 1m |      |
|------|-----------|--------------|--------|-------|-------|---------|----|------|
|      |           | ND(0.000072) | 0.0014 |       |       |         |    | 100m |
|      |           | ND(0.000069) | 0.0014 |       |       |         |    | 217m |

| M-E3 | 2021/11/6 | ND(0.000054) | 0.0015 | 0.034 | 0.065 | 0.00071 | 1m |      |
|------|-----------|--------------|--------|-------|-------|---------|----|------|
|      |           | ND(0.000053) | 0.0014 |       |       |         |    | 100m |
|      |           | ND(0.000058) | 0.0014 |       |       |         |    | 215m |

| M-F3 | 2021/11/12 | ND(0.000070) | 0.0014 | 0.031 | 0.069 | 0.00074 | 1m |      |
|------|------------|--------------|--------|-------|-------|---------|----|------|
|      |            | ND(0.000069) | 0.0015 |       |       |         |    | 100m |
|      |            | ND(0.000061) | 0.0016 |       |       |         |    | 214m |

| M-G3 | 2021/11/12 | ND(0.000072) | 0.0015 | 0.032 | 0.052 | 0.00084 | 1m |      |
|------|------------|--------------|--------|-------|-------|---------|----|------|
|      |            | ND(0.000071) | 0.0015 |       |       |         |    | 100m |
|      |            | ND(0.000061) | 0.0014 |       |       |         |    | 200m |

| M-H3 | 2021/11/13 | ND(0.000057) | 0.0015 | 0.029 | 0.062 | 0.00074 | 1m |      |
|------|------------|--------------|--------|-------|-------|---------|----|------|
|      |            | ND(0.000067) | 0.0014 |       |       |         |    | 100m |
|      |            | ND(0.000069) | 0.0015 |       |       |         |    | 215m |

| T-18 | 2021/11/4 | ND(0.0014) | 0.0048 |  |  |
|------|-----------|------------|--------|--|--|
|      |           | ND(0.0014) | 0.0032 |  |  |
|      | 2021/12/3 | ND(0.0014) | 0.0032 |  |  |
|      |           | ND(0.0014) | 0.0031 |  |  |

| M-H1 | 2021/11/4 | ND(0.000067) | 0.0015 |  |  |  | 1m |
|------|-----------|--------------|--------|--|--|--|----|
|      |           | ND(0.000067) | 0.0016 |  |  |  |    |



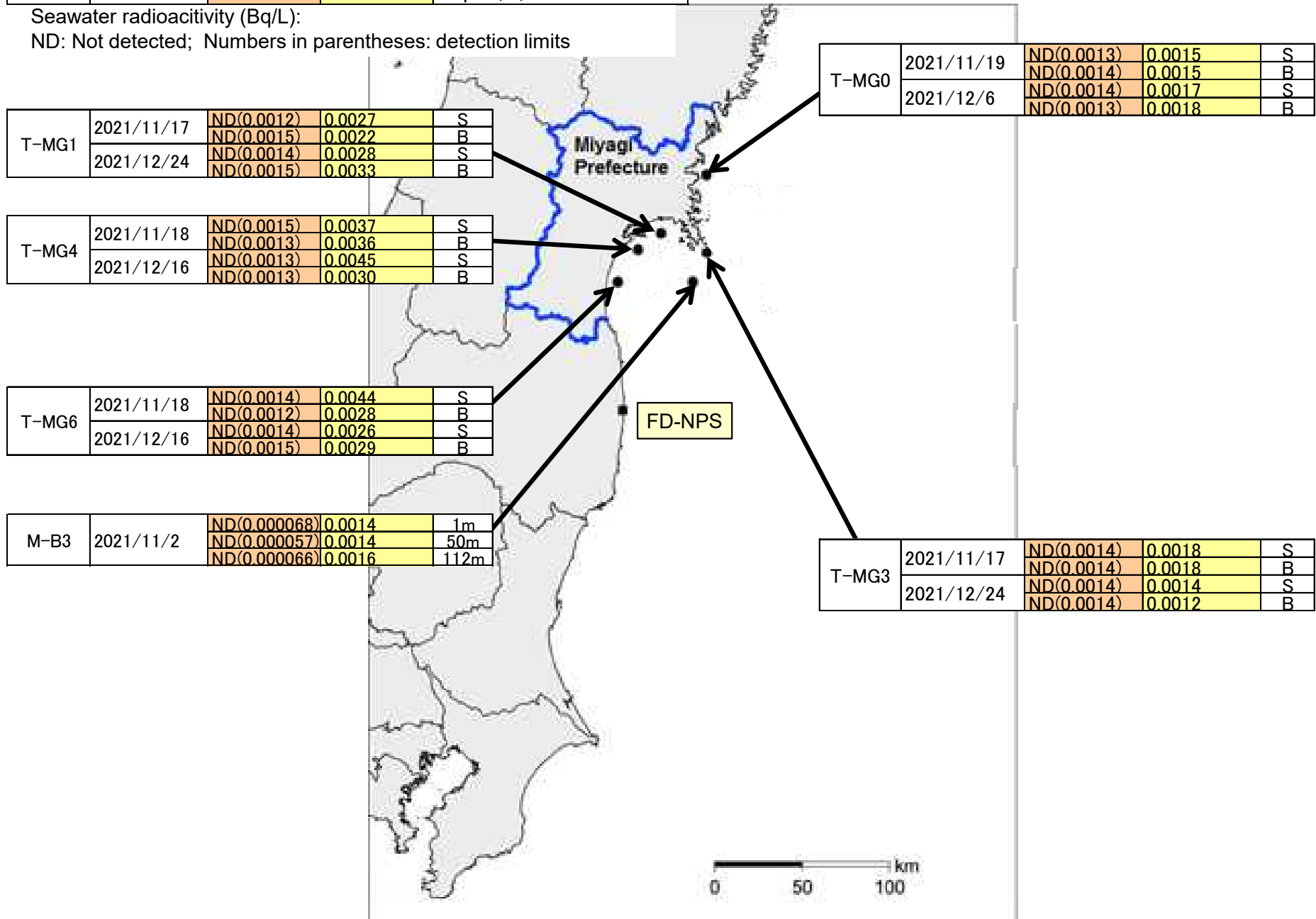
# Most recent radioactivity data of sea area along and off the coast of Miyagi Prefecture

S:2m below sea level B:2-3m above sea bottom

| Sampling point | Sampling Date | Cs-134 | Cs-137 | S/B                     |
|----------------|---------------|--------|--------|-------------------------|
|                |               |        |        | Depth(m) from sea level |

Seawater radioactivity (Bq/L):

ND: Not detected; Numbers in parentheses: detection limits



# Most recent radioactivity data of sea area along and off the coast of Ibaraki Pref. and Chiba Pref.

| Sampling point | Sampling Date | Cs-134 | Cs-137 | S/B                     | S:2m below sea level | B:2-3m above sea bottom |
|----------------|---------------|--------|--------|-------------------------|----------------------|-------------------------|
|                |               |        |        | Depth(m) from sea level |                      |                         |

Ibaraki Pref. and Chiba Pref.

Seawater radioactivity (Bq/L):

ND: Not detected; Numbers in parentheses:detection limits

| T-A | 2021/12/21 | ND(0.92) | ND(0.97) | S |
|-----|------------|----------|----------|---|
|     |            | ND(0.90) | ND(1.1)  | B |
|     | 2022/1/26  | ND(0.97) | ND(1.2)  | S |
|     |            | ND(0.97) | ND(1.1)  | B |

| T-B | 2021/12/20 | ND(0.87) | ND(1.1) | S |
|-----|------------|----------|---------|---|
|     |            | ND(0.86) | ND(1.1) | B |
|     | 2022/1/25  | ND(0.87) | ND(1.1) | S |
|     |            | ND(0.92) | ND(1.1) | B |

| T-C | 2021/12/22 | ND(0.81) | ND(1.0) | S |
|-----|------------|----------|---------|---|
|     |            | ND(0.77) | ND(1.1) | B |
|     | 2022/1/24  | ND(0.97) | ND(1.1) | S |
|     |            | ND(1.1)  | ND(1.2) | B |

| T-D | 2021/12/21 | ND(1.1)  | ND(1.1) | S |
|-----|------------|----------|---------|---|
|     |            | ND(0.82) | ND(1.2) | B |
|     | 2022/1/25  | ND(0.97) | ND(1.1) | S |
|     |            | ND(0.97) | ND(1.1) | B |

| M-M1 | 2021/11/15 | ND(0.000057) | 0.0014 | 1m   |
|------|------------|--------------|--------|------|
|      |            | ND(0.000058) | 0.0016 | 108m |

| M-I3 | 2021/11/13 | ND(0.000069) | 0.0018 | 1m   |
|------|------------|--------------|--------|------|
|      |            | ND(0.000054) | 0.0017 | 100m |
|      |            | ND(0.000066) | 0.0017 | 175m |

| M-J3 | 2021/11/14 | ND(0.000065) | 0.0015  | 1m   |
|------|------------|--------------|---------|------|
|      |            | ND(0.000063) | 0.0016  | 100m |
|      |            | ND(0.000031) | 0.00053 | 561m |

| M-IB4 | 2021/11/14 | ND(0.000063) | 0.0015 | 1m   |
|-------|------------|--------------|--------|------|
|       |            | ND(0.000063) | 0.0018 | 116m |

| T-E | 2021/12/20 | ND(0.92) | ND(1.2) | S |
|-----|------------|----------|---------|---|
|     |            | ND(0.86) | ND(1.1) | B |
|     | 2022/1/26  | ND(0.81) | ND(1.1) | S |
|     |            | ND(0.79) | ND(1.0) | B |

| M-L1 | 2021/11/15 | ND(0.000067) | 0.0014 | 1m  |
|------|------------|--------------|--------|-----|
|      |            | ND(0.000067) | 0.0017 | 35m |

