

Japan's Future Priority Areas of Arctic Policy

**Policy Elements to be Considered on the Development of
the Third Revised Basic Plan on Ocean Policy**

November 2017

Study Group for the Future of the Arctic

(Secretariat)
The Nippon Foundation
National Graduate Institute for Policy Studies
Ocean Policy Research Institute of the Sasakawa Peace Foundation

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3 ROLF\ (OHPHQWV WR EH & RQVLGHUHG R
WKH 7KLUG %DVLF 3ODQ RQ 2FHDQ

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JHQJWKHQ DQG WXS\$SRUW\ FQHQDWLWLFXEWXHDUFKr]“ H ÁS RQHGRb@QGÀ`
& RQWULEXWLRQV

(IIRUWV WR DGGUHVV HQYLURQPHQWDO FKDQJ
(QVXULQJ & RQVHUYDWLRQ RI WKH OFHDLQH (QY

3URPRWLRQ RI WKH 2FHDQ (FRQRPI %OXH (FRQI
6XSSRUW LQQRYDWLRQV IRU SURPRWLQJ VXVW
& UHDWH \$UFWLQHMHOBSSHGU W\QLWLHV

6HFXULQJ 6DIHW\ DQG 6HFXULW\ RI WKH \$UFWL
& RQWULEXWH WRU RDHQRMDOZ'QUQWWKH \$UFWL
(QKDQFH PDULWLQHHGVRPO\\$Q LDQ DWUKHH \$UFWL

3URPRWLQJ ,&QRWRHSUHQDWWILRQDROQ WKH \$UFWL
& RQWULEXWH WR WKH SURFHVV RUFLQWFLHUQDW
V WR EH DEOH WROFRQJWULE

SUREOHGV LQ WKH \$UFWL

& RQWULEXWH WR @F1KOLM\YRQV W\K\HWBQWDHERDHOV

6'*V LQ WKH \$UFWL

,QWURGXFWLRQ

7KH ,PSRUWDQFH RI WKH \$UFWLF IRU -DSDQ

7KH \$UFWLF DQG LWV DGMDFHQW PUDHWJHL RFQKD QJH ILQJOXO D VHD ZDUPLQJ DW PRUH WKDQ WZLFH WKH UDWH RI WKH JOREDO D \$UFWLF VHD LFH LQH WQHQHG PPHD SKLWLRQ B\W HMO\LW ZSRU RMHFVH WUHQG ZLOO FRQWLQXH WKURXJHVWLQ DWHQHQKVRW VHL GDFH QRWQF FRQWLQXH DW FXUUHQW UDWHV HMKRHI \$UHFDWLFH2E Q DVQXPRXO Q WKH ODWH V

7KH UDSLG HQYLURQPHQWDO FKDQWHKVLQJ QHHWZQDDWLQR QDQG \$ERWK \$UFWLF DQG QRQ \$UFWLF VVWDQVBFKZLOVOKH QJH DQJHK HRIG VHD LFH LV PDNLQJ XVH RI WKH \$RSWQE QJH DS5QNWHR SDSBHDQ LQFOXGLQJ WKH GHYHORSPHQW RI FUHVVFRDQF H\$W DWIGHWRDXPUHL WZDUPLQJ RI WKH \$UHFDWLFQHQLQH RQH QFKDQJH DQG ZD WKH \$UFWLF 2FHDQ DVVRFLDWHG RZLWHLVWLQHJ PRHI ORVFLHOOQ RDIFVLS DQG LWV LPSDFW RQ IUDJLOH \$UFWVRFWHKFRP HMO\HLPQJ RVHD DQG FOLPDWH FKDQJH DQG FKDQJHV LQ \$UHFDWLFV DQG RRQFDQOFR E OZHOO DV SRWHQWLDO FKDQJHV LQWLKH VHFXULW\ HQYLURQ

7KHZVH HQYLURQPHQWDO FKDQJHV LQ WKH \$UFWLF UHJLRQ :KLOH -DSDQ LV QRW DQ \$UFWLF VWDWH EXW D 3PDULWLP DIIHWFG E\ FOLPDWH FKDQJH LQ DQG \$UHFDWLFV FKDQJHV LQ WKH RWKHU KDQG EHLQJ JHRJUDSKLFF DQGDQORLQDWKB \$VLDVQ -DSDQ LV LQ D SRVLWLRQ WR HQG PC SR F ...p @ \F

FRPSUHKHQVLYH SURPRWLRQ RI \$UFWRSPHQHW HRDURIEVHLQYFDO
HTXLSPHQW VXFK DV UHPRWHO\ RSVHULQJHQG VBLWHLFOOHLW H\$89 H

(QKDQFH LQLWLDWLYHV UHODWHG WR \$UFWLF UHVHDUFK
z ,Q RUGHU WR LQFUHDVH -DSDQIV SDFLVQWLQWLHQ YLQWLHR
LQLWLDWLYHV VSHFLILHG LQ -DS DYQHVD \$GFWLJ HSQRJOLKFH
VXSSRUW V\VWHPV IRU WKH FXUUHQHQ J\$ W&VWSHUPR MRHFVW K
IXWXUH GHYHORSPHQW DQG ORQJ KW HJURJ LPIGQD QSVXIDW R
-DSDQ VKRXOG LPSURYH PHDVXUHV IIRWISURBFRMLQVXDFC
DV WKURXJK WKH WKH UHWDQDQEWKOPHILQMRBMWDQG RDQ UHVQGDHUU
\$U&6 SURMHFW VWUHQJWKHQLQJ UFRO ODFERIOWLWLRQQ GQL
VRFLDO VFLHQFH V DQG WKH KXPDOOLQWLQWHDLGIZHQLSODLVQ
DSSURDFK WRMLQWQMUQDWHLRQDKOSURMHFWV

6WUHQJWKH DQG VXSSRUW LQIUDVWUXFWXUHV IRU VFLH
z 3URYLGH VXSSRUW IRU WKH GHYHORSPHQW RI LQIUDVW
WKDW HQDEOHV WERQWRLILFOQEWKUWYDWD JD SV LQ WKH
LFH FRYHUHG DUHDV WKH FHQWUDQ \$UHFDW)RFUH DWQD
SXUSRVH -DSDQ VKRXOG LPSURYHVWQJXFDWLRQ PRW XDUQH
UHVHDUFK YHVVO IRU \$UFWLF UHVRQDMUFK XBRQGD \$ODW
REVHUYDWLRQ HTXLSPHQW \$89 HWFSURGHQHOMRQSSXKBD
IRU LPSOHPHQWLQRMREQW DQHWDWKEHK \$UFWLF FRDWD
z ,W LV QHFHVVDU\ WR FRQVWUXFW D UHVHDUFK YHVVO
FDSDELOLWLHV E\ WKH HDUO\ LQ DQHWDWKEHK \$UDHWFHLLWRQ
PXOWL SDUDPHWHU DQG ZLGH DUHDORERVHUSRDWLBQWLQ
FRQVLGHU \HDU URXQG XWLQJDWLQJURHIVMDKUHFKUHDQHGU
REVHUYDWLRQ LQ DUHDV RWKHU WLKDQHQ QWKR \$UHFDW
WKH UHVHDUFK YHVVO
z (IIRUWV VKRXOG DOVR EH PDGH WR DQHWDWKEHK \$UDHWFH
WHFKQRORJLHV VXFK DV \$89V IRURWKUHHSRQDDEK DDUQHGV
REVHUYDWLRQ LQ DUHDV ZKLFK YHVVO FDQQRW DFFH
z 'HYHORS DQG PDLQWDLQ WKH OLFURZBYREHFDQHQ QQJ 5D
VDWHOOLWH DQG LWV VXFFHVVVRU ZKLFK LV QHFHVVDU
FOLPDWH FKDQJH LQ WKH \$UFWLF RFHDQ

3URWHFWLRQ RI WKH ODULQH (QYLURQPSHQW H RI DVQIGH \$
&RQWULEXWLRQV

7KH HIIHFWV RI FOLPDWH FKDQJH DUH PRUH HYLGHQW LQ W
ZLWK LPSDFWV QRW RQO\ RQ WKH \$UFWLFDO HE XLW VKIDW HE QW
LQFUHDVLQJO\ FOHDU DFFRUGLQQHWRH WUHWV HVFLWLRQHUV LIE DIVLQG
LQ WKH \$UFWLF 2FHDQ WKDW H[W\$JKHPUHHZHVXWKRHDV LHQ WUHHP QRQ
ZLQWHUV D VHULHV RI YHU\ FROGLQH DWWKHQURSJHMKLHRUGQ/ KBRQIGV
OLQNV WR FKDQJHV RI VHD LFH DUMR EQHQVKUH\$BREWWLHG 2W
WHP SHUDWXUH RI WKH \$UFWLF 2FHDQ LV LQFUHDVLQJ DV D
ZDUPLQJ DQG GHVDOLQDWLRQ DQG HFFRLVGMVRDWLRLQLDUHQGLI
HQYLURQPHQWDO FKDQJH LQ WKH \$UFWLF LV QRW RQO\ D S

(IIRUWV WR \$GGUOV&KDOQYJLHJ RQ PWHQH\$U FWLF 2FHDQ
z &RQLQXH IIIRUWV WR FRQGXFW RQ VMKND\$WEVQ FDQGHQD
DQG SURPRWH WHFKQRORJLFDO GHYHQRRSEPVHQW\WIRBQHQD

WR ERWK WKH HQYLURQPHQW DQG WKH HFRQRPA\ LQ DQ\ PHD\)XUWKHUPRUH -DSDQ VKRXOG DW~~WQJF IE LSODDUWHUFIXO~~ DFUR R\$ISB WKH \$UFWLF FRDVWDO VWDWHV LXQH FFRFORQHFPW LLQQJ WKKHH \$SUFRAPLVR VRXQG GHYHORSPHQW RI -DSDQ\ V P~~DQLFQH WLQHG XLVQWUHLQD~~ FRPSHWLWLYHQHVV RI -DSDQ\ V P~~BWQHNLQGDWUH~~ HAV WLKVW RLHIIRUWV RI WKH SXEOLF DQG SULQHDWUH FVRPFSVDRQWV IWR ISQ ERM HFRQRPLF DFWLYLWLHV LQ WKH \$UFWLFV R2FOIG QVX)RSUR UMK DDQ LQYROYHPHQW RI -DSDQH VH FRPS~~ORWVHVLQCLQWILHFKQ~~ DWURQ RI LQGXVWU\ UHSUHVHQWDWLYHV QRDPULVFL&RSQDWHO VDXQFK WKRHV &LUFOH DQG SURIRRUWEWLQGWQDWLSY HNQRZOHGJH RI \$UFWLF LQGXVWULDOL]DWLRQ E\ WKH -DSDQH VH EXVLQHVV FRPPXQLV

6XSSRUW LQQRYDWLRQV IRU SURPRWWKQ \$DFWALFW D LQDEOH
z 5HODWHG JRYHUQPHQW WHRQIFQHWW OIRFVDOY DRWVH BQPSIRQUDWLDQG DFDGHPLF LQVWLWXWLHV VKRQOQGRF&QUDXVWUH UHVHDUFK RQ VFHQDULRV RI FRPPM~~KH~~ LKDVLQJ HD RWKHRI \$UFWLF 6HD 5RXWH WKH GHYHORS RUHFQMLFR2FOIDQXUDQG WRXULVP LQ WKH \$UFWLF 2FHDQ WKDW DUH FRPSDWLEHQYLURQPHQW)RU WKLV SXUSRVH -DSRDQ VKRXO LQGXVWU\ DFDGHPLD JRYHUQPHQWF~~RQDOR~~ RUDWLRQ DQ
z 7KURXJK FROODE~~RQDWLRQ~~ LQDOW KD~~W~~ HPLG DQGWJRRUW U-OPVKRXOG VXSSRUWEIRWLPQHWLVRQ RRGH~~WQDQ~~ GLQH &WR QDMLWLRQ \$UFWLF 2FHDQ DQG \$UFWLF 6HD 5R~~X~~WWV FQDQXG~~W~~ QHUG GEWKH JRYHUQPHQWSQGLFWXQIGV
z 6WUHQJWKHQ DFWLYLWLHV IRU UDLFLQJ BZDHFHRQHFPV DFWLYLWLHV ZLWK UHJDUG WR W~~KYH~~ QWFWV F KQDFV XGIPQ RU VPSRVLXP RQ WKHVH WRSLFV
z 7DNH SURDFWLYH PHDVXUHV WR LP\$WRYXFDQGV HQS\ QRGU XSJUDGHG KDUERUV UDLOZD\ V DLNSIRRUQVH FPWQ QJWWKH \$UFWLF 6HD 5RXWH LQFOXGLQJ GHYOHOUR SIRHFW RRQ ODE+RNNNDLGR E\ JYLQJ WKH IXWXUH~~QSRVLAQH~~ WDLOR ORI WKLV &UHDWH \$UFWLF UHODWHG EXVLQHVV RSSRUWXQLWLHV
z &UHDWH LQWHUQDWLRQDO EXVLQH~~W~~ QRS SBBWQ QILMF WHRV LQQRYSWLRQ VXSSRUWV LQ WKH ILIKHOEG IRU RUHMDQWU F KPL

G H Y H O R S P H Q W R I R F H D Q W H F K Q R C K R D J Q J H V R D I Q Y G L M J R V Q Z W W L K
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VXSSRUW DQG UHVS RQVHV IRU DG QJULHHLVPLHQ GLPVDDUMLWHLUPW IFQ VW
ZLOO DOVR EH LPSRUWDQW IRU -DFSHD QI WWRD IFRVQ WDQLE XMMIF XW RI
\$UFWLF 2FHDQ E\ PDNLQJ XVH RI LIWPS OBLQQ D XMMIF HFDQOV FK K B U M
LFH IODVK FKDUWV IRU VDIH QDYLJDWLQRFQO XDGORQJ FWQBX \$U
K\GURJUDSKLF VXUYH\ V LQ WKH \$UFWLF 2FHDQ DQG XVLQJ
VDWHOOLWHV WKURWKJIK \$URRVSHEU FWDRQ DQ WWW DWHV

& RQWULEXWH WR PDLQWDLQLQJ WKH UXOH RI ODZ LQ WKH
z , Q PXOWLODWHUDO IRUXPV VXFKL D DWWKHUHD \$ UGFWDLQFR & RYV
\$UFWLF DQG RWKHUW FFRQFHHLUQQXHHG WRWHD DQ RWHQJ HDWIK B QV
& RQYHQWLRQ RQ WKH /DZ RI WKH 6HDI V8LQ /WKEHE\$U D Q/S
2FHDQ DQG WKDW UHODWHG SULQFOLSOOHV UQFQXQGLQHG
³IUHHGRP RI QDYLJDWLQR ' EH UHVSHFWHG
z , Q RUGHU WR PDWLIQHW REQ DRQG HDS DQW DWHD FVFKRFXIOUGQ B QWL
SDUWLFLSDWH LQ WKH IXWXUH SBRQFWKVH BUEQWHUQBDW
DQG EXLOG FORVH FRRSHUDWLHYH RUH OQWXBQJK LSSHMD ZHWW
XVH RI WKH \$UFWLF 2FHDQ
z , Q SUHYHQWLQJ DQ HVFDODWLRQ GRH YWHQRLPRHQW VQFWK

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3URPRWLRQ RI ,QWHUQDWLRQDO &RRSHUDWLRQ RQ WKH \$U

(QYLURQPHQWDO FKDQJHV LQ WKH W\$KHF WQF IS BQD WLDRQDQVF ZKHVKHU \$UFWLFDWLRQDQFQ \$BFRVLDQDQFODR BQDQD WH UHVSQRGLQJ WR WKRVH LVVXHV \$WUWVWHLRQDQFH WLRQDQWLRQ ZHOO DV FRRSHUDWLRQ DPRQJ LQGJHVVPLSHRUWQ QWUHRWIDSLURVXVWDLQDEOH GHYHORSPHQW LQ WKH \$UWLF WHFFUZKDMWILHQJH FRPPHULDO RSSRUWXQLWLHV VXFHVHDVDQWQHWKMHGRIYHWCRHSBQDWXUDO UHVRXUFHV

6LQFH UXOH PDNLQJ UHJDUGLQJ DQG FRRUGLQDWLRQ RI LVXEVDQWLDOO\ \$UFWLFBQ&RGXQVRLQW KSHQWD FZLWYKH WHQHJ DQHVF XQHFFHVVDU\ LQ RUGHU WR VDIHJXDUQO-WRS DQHVFH QDQMLRWBQOEHDWKDW -DSDQ KDV REVHUYHU VWDWXV LQ WKH \$UFWLFBQ&RGXQHFFHVVWLQGWKHWRWHDQHHSRWSQHDWWD\$DFQVRSRUWDGHYHORSLQJ H[SHUWV RQ \$UFWLFLVFLXHV FZKRVWUHV DIERQH VVXVWDLQDEOH GHYHORSPHQW RI WKH \$UFWLFDQG WR SDUWLQWHUQDWLRQDIOHIBUWLLQFQ&RGXQISQW,DAQWVWWDRO\$BRLPPRWHDQGMRLQW LQWHUQDWLRQDO \$UFWLQFXGHQH DWWFKL\$WFWKLIEQVWHDJMMWR LQFUHDVH LQWHRQDQWLFRQDQFBRSRQDFH GHYHORSPHQW

7KH FKDOOHQJHV IDFLQJ WKH \$UFWLDFGDILRQ IDQ\ WRQJDXHOI VWDWH RU WKH \$UFWLFDVWDFHVR DGRQHWWRDQ&EJHVVW\$XQFOALF FUHDWH QHZ RSSRUWXQLWLHV WKDW DUH WUDQVQDWLRQDO VWUHQJWKV LQ VFLHQFH DQG WHFRQXRLWKRJHUVKWXJQJQJDWKWQEDQG PXOWLODWHU\$LOFWRLSDHQJGQJERQ\$ZPFDWKLFRVQDWUHLVE XWLRQVLQWHUQDWLRQDGYIDQFHQJHWRWHDQDDQRFQ RFHDQ JRYH

,W LV DOVR LPSRUWDQW IRU -DSDQ WR FRQWULEXWH WR ID6'V' LQ WKH \$UFWLFDVWDFHVR DGRQHWWRDQ&EJHVVW\$XQFOALF \$UFWLFBQ&RGXQFLO KD8VQDWBQGKDPWIRPHQWHEORSPHQW *RDOV DQGV IRU WKHLU UHDOL]DWLRQ' LQ WKH)\$MUDQDQWIRPQDQDDWLRQ

& RQWULEXWH WR WKH SURFHVV RUFLQWLFH UQDWLRQDO UXOH
z \$FWLYHO\ SDUWLFLSDWH LQ PHHWLQJV UHODWHG WR L
VXFK DV WKH \$UFWLF & RXQFLO \$&FXVQLGRQIQRERDXVUHDGU HR
VFLHQWLILF JURXQGV LQ RUGHU VGRWHQHV XQW HUWKHD WQRV
FRPPXQLW\

z \$FWLYHO\ HQFRXUDJH UHODWHG FIRXQWUWLQHV WR QWDZNH
RUGHU WKDW UHOHYDQW LQWHUQDRLQJ YHOOZW LLQQF ORX
WKH /DZ RI WKH 6HD 81&/26 EH DSUHOFIRHJQ LDG XQGMUW
LQWHUQDWLRQDO ODZ LQFOXGLQJ ³IRQH HGRHP VRHDQDYL
LQFOXGLQJ WKH \$UFWLF 2FHDQ

SURPRWH LQWHUQDWLRQDO VFLHQWV KFH \$QSWLFFKQRORJL
z %\ SURPRWLQJ LQWHUQDWLRQDO MIRQQW XWHDVH DQE EKQQFRH
DOVR LQ WKH VRFLDO VFLHQFHV DQGV KIXRQDGQIOWLVHV
LQWHUQDWLRQDOO\ FRQWULEXWHQWRKDIG\$GWFLVFL QVXHFQY
WKH ZDUPLQJ RI WDQHG\$UWWLFP 2DHWQRQ JOREDO FOLPDW
z 3URPRWH \$UFWLF FKHR \$MHWWE RVQW DWWHRRQLCQFOXLQJQ JR IW
ELODWHUDO DQMRQWP XQWHDODFWKQICQDSKHF WRQ P20XQIQQ JDRI
DJUHHPHQW RQ VFLHQWLILF DQG WHFKQRORJLFDO FRRS

'HYHORS DQG IRVWHU KXPDQ UHVVRXUOFHLVQWISUREDEBPAWIMQ
\$UFWLF

z ,Q RUGHU WR FRQWULEXWH WR VROYLQJ SUREOHGV L
HGXFDWLRQ DQG UHVHDUFK IRU WUDLQLQJ DQG VHFXUL
WKH QDWXUDO VFLHQFHV LQFOXGLFQDQVHFKQRQERVLDQ
KXPDQLWLHV

z & RQWULEXWH WR WKH FDSDFLW\ EXLOGLQJ RI SHRSOH
FRRSHUDWLRQ WKURXJK SURYLGUQJ HVDXISISIRUWWWRUDLSQD
LQFOXGLQJ LPSURYHPHQW RI KXEV WRKUH UHIAKIDQJHK RDQG
UHVHDUFKHUV LQ WKH \$UFWLF VWDWHV

& RQWULEXWH WR DFKLHYLQJ WKH 8QQWH*RDOWLBQV 6LXQ/W
WKH \$UFWLF

z *LYH FRQVLGHUDWLRQ WR WKH \$UWWNEQV XQIDTVXHUHFWDW
SURPRWH ³WKH 6XVWDLQDEOH 'HYHORS P*HQWGLQRDOV 6
3ULQFLSOHV' DQG ³6SHFLILF 0HDVXUHV WR \$FKLHYH

* RDOV' WKDW ZHUH³ 6DXGRVSDWQQE@H WIKYHORVS PHQW * RD
3URPRWLRQ +HDGTXDUWHUV' DW WKHLQ UHFFHPOELQJVWHU
ZLWK SDUWLFXODU IRFXV RQ DQJKH HDYQHQ J* RBDQO R
RQ 2FHDQV DQG 6HDV