

Projects in the Fram Centre Flagships for 2011

Research areas/Project titles	Project leader	Participating institutions	Flagship	E-mail project leader
Effects of climate change on sea and coastal ecology in the north (Fjord and Coast)				
<i>Physical-biological coupling: Oceanography and habitat use by predators and their prey</i>				
Climate variability and change in oceanographic conditions in fjords and coastal waters	Jofrid Skardhamar	HI, UiT, Bjerknes Centre	Fjord and Coast	jofrid.skardhamar@imr.no
Climate impacts on drift patterns of eggs and larvae of red king crab and coastal cod	Ole P. Pedersen	HI, UiT	Fjord and Coast	ole.p.pedersen@uit.no
Climate impact on anadromous salmonids	Kari Norheim Guttorm Christensen	VI, ApN, HI, NINA, NP	Fjord and Coast	kari.norheim@vetinst.no guttorm.christensen@akvaplan.niva.no
Atlantic salmon: Biological and genetic knowledge and resource use among local people	Martin Svenning Einar Eythorsson	NINA, NIKU	Fjord and Coast	einar.eythorsson@niku.no martin.svenning@nina.no
Drift of fish larvae and its effect on Norwegian seabird populations	Kjell Einar Erikstad	NINA, HI, NP	Fjord and Coast	kiell.e.erikstad@nina.no
Seabird habitat use	Børge Moe	NINA, NP, HI, UiT	Fjord and Coast	borge.moe@nina.no
Modeling trophic interactions and ecosystem dynamics	Øystein Varpe	NP,UiT, HI	Fjord and Coast	Oystein.Varpe@npolar.no
<i>Structure, function and change in Arctic and boreal fjord ecosystems</i>				
Physical environment	Oddvar Longva	NGU, HI	Fjord and Coast	Oddvar.Longva@NGU.NO
Mapping nature-types in North Norway and Svalbard	Nina M. Jørgensen	ApN/NIVA, HI	Fjord and Coast	nina.jorgensen@akvaplan.niva.no

Benthic biodiversity and ecosystem function in Svalbard and North Norway	Lis Lindal Jørgensen Kari Ellingsen Sabine Cochrane	HI, NINA, APN, UiT, UNIS, HiFi	Fjord and Coast	lis.lindal.joergensen@imr.no kari.ellingsen@nina.no sc@akvaplan.niva.no
Effects of jellyfish on benthic communities	Paul Renaud	ApN, UNIS, NIVA	Fjord and Coast	pr@akvaplan.niva.no
Impacts of eiders predation on benthic communities in a range of climatic zones	Sveinn Are Hansen	NINA, HI, NP, UiT	Fjord and Coast	sveinn.a.hanssen@nina.no
Climate induced effects on sea urchin grazing on kelp	Lis Lindal Jørgensen Hartvig Christie	HI, HiFi, NIVA	Fjord and Coast	lis.lindal.joergensen@imr.no hartvig.christie@niva.no
Trophic impacts of the red king crab	Jan Sundet	HI, UiT	Fjord and Coast	jan.h.sundet@imr.no
Climate and mussels	Michael Carroll	ApN, UNIS, UiT	Fjord and Coast	mlc@akvaplan.niva.no
Lower trophic levels and carbon-fluxes in Arctic fjord systems	Tove Gabrielsen	UNIS, UiT	Fjord and Coast	tove.gabrielsen@unis.no
<i>Human dimensions of ecosystem response to climate change</i>				
Documentation and use of local/traditional ecological knowledge (LEK) on ecological change, climate change, resource use and cultural environments in fjord and coastal areas	Elin Myrvoll Einar Eythorsson Arild Buanes	NIKU, UiT, NORUT	Fjord and Coast	elin.myrvoll@niku.no einar.eythorsson@niku.no Arild.Buanes@norut.no
Changing conditions for valuation and use of coastal areas and resources	Arild Buanes Einar Eythorsson Marit Myrvoll	NORUT, UiT, NIKU	Fjord and Coast	Arild.Buanes@norut.no einar.eythorsson@niku.no marit.myrvoll@niku.no
Historical and current use of marine living resources – ecosystem structure	Paul Renaud Elin Myrvoll	ApN, NIKU	Fjord and Coast	pr@akvaplan.niva.no elin.myrvoll@niku.no
Arctic ocean – technology and system of agreements (Sea Ice in the Arctic Ocean)				
Characterization of Arctic sea ice properties from remote sensing observations	Torbjørn Eltoft	UiT, Norut, NP	Sea Ice in the Arctic Ocean	torbjorn.eltoft@uit.no
Long-term variability and trends in the Atlantic water inflow region	Vigdis Tverberg Vladimir Pavlov	HI, NP, UNIS, UiT international partners	Sea Ice in the Arctic Ocean	vigdist@imr.no vladimir.pavlov@npolar.no
Modelling of sea ice circulation, ice cover and ecosystem	Ole-Anders Nøst	NP, HI, ApN, NILU, SINTEF, UNIS	Sea Ice in the Arctic Ocean	ole.anders.nost@npolar.no
Pre- project biology in the Arctic ocean	Harald Steen	NP, HI, NINA, UiT, ApN,	Sea Ice in the	harald.steen@npolar.no

		UNIS	Arctic Ocean	
Industrial exploitation and use of the Arctic marine area	Mette Midtgard	NORUT, Nofima, TØI	Sea Ice in the Arctic Ocean	Mette.Ravn.Midtgard@norut.no
Arctic futures	Peter Arbo	UiT, Norut, Nofima, NP	Sea Ice in the Arctic Ocean	peter.arbo@uit.no
Regulating Arctic shipping	Tore Henriksen	UiT, ApN, FNI, MarinTek	Sea Ice in the Arctic Ocean	tore.henriksen@uit.no
Logstics and maritime operations: modelling and simulations	Jørn Eldby	SINTEF, ApN, NTNU, DnV	Sea Ice in the Arctic Ocean	jorn.eldby@sintef.no
Oil in ice	Lionel Camus	ApN, HI, NILU, NINA, NIVA, Norut, NP, NRPA, SINTEF, UiT, international partners	Sea Ice in the Arctic Ocean	lionel.camus@akvaplan.niva.no
Pre- project shipping	Jørn Eldby	SINTEF, Kystverket, Norut, UiT, ApN, Ocean Futures, MarinTek	Sea Ice in the Arctic Ocean	jorn.eldby@sintef.no
Ocean acidification and ecosystem effects in northern waters (Ocean acidification)				
<i>Processes related to the Arctic and the sea ice</i>				
The role of Arctic sea ice as a carbon pump observed in Fram Strait / Characterization of CO ₂ fluxes from sea ice	Mats Granskog	NP, HI, international partners	Ocean acidification	mats.granskog@npolar.no
Elaboration of a ferry-box based system for the ocean acidification parameters measurements	Kai Sørensen	NIVA, international partners	Ocean acidification	kai.sorensen@niva.no
The studying of the present OA state of the Norwegian waters	Kai Sørensen	NIVA, UNIS	Ocean acidification	kai.sorensen@niva.no
<i>Effect of ocean acidification on species and ecosystems</i>				
Influence of ocean acidification and temperature on sperm motility, fertilization and embryonic development in Atlantic cod	Helge Tveiten	Nofima, ApN, NRPA	Ocean acidification	helge.tveiten@nofima.no

Ocean Acidification effects on key components of the ice-associated ecosystem in the Arctic	Haakon Hop	NP	Ocean acidification	haakon.hop@npolar.no
Effects of OA on the reproduction of the reef building cold water coral <i>Lophelia pertusa</i>	Johanna Järnegren	NINA	Ocean acidification	johanna.jarnegren@nina.no
Synergic effects of ocean acidification, increasing temperature and decreasing salinity on Arctic calcifying organisms: mesoplankton vs. holoplankton	Clara Manno	UiT, Brest University	Ocean acidification	clara.manno@uit.no
Arctic Tipping Points: Impacts of acidification and increased temperature on early life-stages of benthic organisms	Paul Renaud	ApN, NP	Ocean acidification	pr@akvaplan.niva.no
<i>Social sciences</i>				
The Economics of Ocean Acidification	Claire Armstrong	UiT, NIVA	Ocean acidification	claire.armstrong@uit.no
Effects of climate change on terrestrial ecosystems, landscapes, society and indigenous peoples (Terrestrial)				
<i>Vegetation state change and herbivore management</i>				
Moth-reindeer-birch dynamics in northernmost Fennoscandia	Jane U. Jepsen Rolf A. Ims	NINA, UiT	Terrestrial	jane.jepsen@nina.no rolf.ims@uit.no
Large scale impacts of herbivory on vegetation	Bernt Johansen Eirik Malnes	Norut	Terrestrial	bernt.johansen@norut.no eirik.malnes@norut.no
TUNDRAscape: Analyzing the effect of climate and human uses on tundra ecosystems by remote sensing	Per Fauchald	NINA, NIKU, UiT	Terrestrial	per.fauchald@nina.no
<i>Ecosystem effects of extreme climate events and season</i>				
Svalbard terrestrial ecosystem – climate impacts and trophic interactions	Eva Fuglei	NP, NINA, UNIS	Terrestrial	eva.fuglei@npolar.no
Arctic Winter Processes and Global Change Impacts	Jarle W. Bjerke	NINA, NORUT, several international institutions	Terrestrial	jarle.werner.bjerke@nina.no

Climate variations and contaminants in the Pasvik border area – effects on limnic ecosystems	Guttorm N. Christensen	ApN, NINA, NIVA, UiT, Bioforsk	Terrestrial	guttorm.christensen@akvaplan.niva.no
Climate-dependent infectious agents and diseases in reindeer (wildlife diseases)	Morten Tryland	NVH, VI, UiT	Terrestrial	Morten.Tryland@veths.no
<i>Capacity for adaptation in indigenous people and local societies</i>				
Local Land-Use Change in a Changing Climate: Farming Practices, Nature-Based Tourism, and Outdoor Recreation (LUCC)	Astrid Ogilvie	CICERO	Terrestrial	astridog@cicero.tromso.no
Climate & reindeer	Marius Warg Næss	CICERO, NINA, University College of London	Terrestrial	m.w.nass@cicero.uio.no
<i>Adaptive management of ecosystem services</i>				
GOOSEHUNT (Reducing damage to agriculture by migratory geese by means of population control; investigating the use of adaptive organisation and co-management of hunting)	Ingunn Tombre	NINA, NIKU, Norut, Aarhus University	Terrestrial	ingunn.tombre@nina.no
MIGRAPOP (Adaptive management of migratory populations; developing novel tools at the interface between ecology, economy, agriculture and society)	Ingunn Tombre	NINA, NIKU, Bioforsk, national and international partners	Terrestrial	ingunn.tombre@nina.no
Hazardous substances – effects on ecosystems and human health (Hazardous substances)				
<i>Human health and society</i>				
Total exposure of newborns and selection bias in MISA	Jon Ø. Odland	UiT, NILU	Hazardous substances	jon.oyvind.odland@uit.no
Follow up of Children	Jon Ø. Odland	UiT, NILU	Hazardous	jon.oyvind.odland@uit.no

			substances	
PFAS and diabetes 2 in the NOWAC study	Torkjel Sandanger	NILU, UiT	Hazardous substances	Torkjel.Sandanger@nilu.no
SAMINOR2	Magritt Brustad	UiT, NILU, SSHF	Hazardous substances	magritt.brustad@uit.no
Analysis of the impact on humans and society	Natalia Kukarenko	UiT, NILU	Hazardous substances	Natalia.N.Kukarenko@norut.no
Exposure of the newborn and changes during pregnancy	Jon Ø. Odland	UiT, NILU	Hazardous substances	jon.oyvind.odland@uit.no
Sør-Varanger and Arkhangelsk – an integrated case study	Torkjel Sandanger	UiT, NRPA, NGU, ApN, Norut, NILU, NVH, SSH, Unilab	Hazardous substances	Torkjel.Sandanger@nilu.no
Exposure scenarios for the Northern Norwegian population	Torkjel Sandanger	UiT, NILU, ApN, Norut, NRPA, NVH/VI	Hazardous substances	Torkjel.Sandanger@nilu.no
<i>Animal health and ecosystem</i>				
COPOL II	Geir Wing Gabrielsen Anita Evenset	ApN, NIVA, NILU, NRPA, NP	Hazardous substances	gabrielsen@npolar.no Anita.Evenset@akvaplan.niva.no
Temporal trend analysis -COPOL WP2	Jan O. Bustnes	NINA, NILU, ApN	Hazardous substances	Jan.Bustnes@nina.no
Raptor – effects of toxicants and stress factors on birds of prey	Jan O. Bustnes	NINA, NILU, international partners	Hazardous substances	Jan.Bustnes@nina.no
SKUA – effects of POPs on the great skua	Jan O. Bustnes	NINA, NP, international partners	Hazardous substances	Jan.Bustnes@nina.no
Workshop on the topic Multistressor	Geir Rudolfson Jan O. Bustnes	All participants in the Fram Centre	Hazardous substances	geir.rudolfson@nrpa.no Jan.Bustnes@nina.no
Contaminant effects on polar bear energetics	Heli Routti	NP, UiT, NILU, UiB	Hazardous substances	heli.routti@npolar.no
Mouse model to study immunosuppression after exposure to pollutants	Jacques Godfroid	NVH, NP, HI, Univ. Belgium	Hazardous substances	Jacques.Godfroid@nvh.no
Modelling – transport, fate and bioaccumulation of contaminants	Eldbjørg Heimstad	NILU, ApN, NIVA, NRPA, NGU	Hazardous substances	esh@nilu.no

"Oil in ice"				
Pollution from petroleum activities and shipping in the north- effects on arctic ecosystems and human health	Anita Evenset	ApN, NIVA, NILU, Norut	Hazardous substances	Anita.Evenset@akvaplan.niva.no

Abbreviations:

ApN: Akvaplan-NIVA Inc.; **Bioforsk:** Norwegian Institute for Agricultural and Environmental Research; **CICERO:** Center for International Climate and Environmental Research – Oslo; **DnV:** Norwegian Veritas; **FNI:** Fridtjof Nansen Institue; **HI:** Institute of Marine Research; **HiFi:** Finnmark University College; **Kystverket:** Norwegian Coastal Administration; **NGU:** Geological Survey of Norway; **NINA:** Norwegian Institute for Nature Research; **NIKU:** The Norwegian Institute for Cultural Heritage Research; **NILU:** Norwegian Institute for Air Research; **NIVA:** Norwegian Institute for Water Research; **Nofima:** The Norwegian Institute of Food, Fisheries and Aquaculture Research; **Norut:** Northern Research Institute; **NP:** Norwegian Polar Institute; **NRPA:** Norwegian Radiation Protection Authority; **NTNU:** Norwegian University of Science and Technology; **NVH:** Norwegian School of Veterinary Science; **SINTEF:** The Company for Industrial and Technological Research; **SSHF:** Centre of Sami Health Research; **TØI:** The Institute of Transport Economics; **UiB:** University of Bergen; **UiT:** University of Tromsø; **UNIS:** The University Centre in Svalbard; **Unilab:** Unilab Analysis Inc.; **VI:** Norwegian Veterinary Institute