

INTAROS

Community-Based Monitoring Capacity Development Process in Yakutia and Komi Republic, Arctic Russia



Process Report - December 2019



NORDECO

Nordic Agency for
Development and Ecology



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Front page: The Lena River, Yakutia, Russia. Evenk community groups have documented that fish (Siberian and Arctic cisco; *Coregonus sardinella*, *C. autumnalis*) are increasingly found at greater water depths in the tributaries to the Lena River. The fish are therefore difficult to catch with the permitted net types. This finding has been used by the Republic Indigenous Peoples organisation to influence changes in permitted net types. Cover photo by Martin Enghoff

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INTAROS (Integrated Arctic Observing System) is an effort funded by the European Union to extend and improve existing and evolving observing systems that encompass the land, air and sea in the Arctic. INTAROS has been implementing a community-based monitoring (CBM) capacity development process among selected indigenous peoples' communities in Arctic Russia since September 2017. The areas and sites involved include communities in Zhigansk and Olenek districts in Sakha Republic, Eastern Siberia, and Komi-Izhma communities in Komi Republic. The CBM activities are primarily being implemented in the various communities of Zhigansk and Olenek districts in Sakha Republic, which is home to the Evenk indigenous communities.

The indigenous communities involved are mainly fishermen, hunters and reindeer herders who are heavily dependent on the living natural resources in remote areas of the Arctic. All areas have indigenous communities making important local use of living resources but who are, at the same time, facing serious challenges in relation to accessing these resources due to changes in resource availability and threats, including pollution and resource depletion caused by various forms of mining and the oil and gas industry, as well as companies utilising and increasingly monopolising the fish resources. The areas are classified as traditional areas of occupational use. This is a legal status that gives indigenous communities in Russia a degree of protection but, in practise, it has proved difficult to enforce this status in relation to protecting the rights of indigenous communities.

The organisations involved in the CBM process are first and foremost the Centre for Support to Indigenous People of the North (CSIPN), the Republic Indigenous Peoples' Organisation of Sakha Republic and NORDECO (Nordic Foundation for Development and Ecology) from Denmark.

The CBM process has involved a wide range of workshops and meetings in the communities of the targeted districts. A total of 20 workshops and meetings have been conducted in the three districts, with an average of some 10-15 people involved in each one. The workshops and meetings have focused on introducing CBM and on building capacity to undertake CBM in the communities. Subsequent workshops have focused on how concrete CBM activities are being implemented in the respective communities. Different communities have been involved in the INTAROS CBM process for different lengths of time, with some starting in 2017, others in 2018 and a few in 2019. The status as of May 2019 is that eight different CBM groups are actively undertaking CBM within the targeted areas.

Key participants in workshops and meetings have included local fishermen, hunters and herders, local indigenous peoples' representatives, various members of local authorities, and school students and teachers.

Sakha Republic, Zhigansk and Kystatyam. Workshops were held in September 2017 and September 2018 in Zhigansk and Kystatyam in Zhigansk District, Sakha Republic. Here, involvement in CBM activities includes fishermen and hunters from Zhigansk; fishermen, hunters and herders in Kystatyam; and school students and teachers from Zhigansk School. In summary, the natural resources and the main issues discussed were:

- Fishing grounds and fisheries are being taken over by outside companies. A major change in the law has allowed for hunting and fishing rights to be bought, controlled and monopolised by outside companies through a system of auctions. In Zhigansk District, when locals attempt to fish, they are now frequently told to leave the area. Although indigenous demonstrations and boycott threats were organised in the Republic, this only helped bring about changes to the hunting laws. Fishing laws remained untouched, and these are of far more significance to the people. Fishing area auctions are still occurring and companies still control the majority of fisheries. Only subsistence fishing is allowed, and local people may only legally sell fish if it is

through the companies, on their terms. The changes that are occurring with regard to the fishing areas and fishery resources are of crucial importance locally.

- Certain species of fish (first of all, Arctic cisco (*Coregonus autumnalis*) and Siberian cisco (*Coregonus sardinella*) are especially vital for the people, who have seen major changes in access to these fish. There is a decline in availability.
- Lake fishing involving Peled (*Coregonus peled*) and Siberian whitefish (*Coregonus lavaretus pidschian*) is a crucial resource. Lake fishing is experiencing major changes, and these are affecting people's livelihood opportunities.
- The domestic reindeer industry is considered to be in crisis. There has been a decline from 20,000 to only 3,000 in the area. There is reportedly plenty of pastureland, so this is not the problem. The issue revolves around the methods and measures for organising and supporting reindeer husbandry, which are not currently conducive to the industry. The availability of suitable food, the right reindeer lichen, is also a topic that requires better understanding, however.
- Wild reindeer are an important resource in the area, especially for local hunting. The populations of wild reindeer have been in decline, so knowledge of their numbers and movements would be invaluable.
- Moose is another important natural resource. The population has been steadily decreasing, with hunting rules - such as the need not to shoot females - widely disregarded.
- Sable (*Martes zibellina*) is traditionally an important animal, locally hunted for the fur trade. The income from hunting sable has reduced significantly, and practices are no longer environmentally or economically sustainable.
- Wolf populations are increasing in numbers; this is considered worrying by the community members as wolves are an increasing threat to domestic reindeer and to people.
- Brown bear populations are also a growing threat to the local people due to increasing numbers of attacks and encounters close to villages. It is difficult for locals to control the numbers due to a lack of licenses for bear hunting. People are increasingly afraid to go into the forest.

Key resources that the CBM groups in Zhigansk and Kystatyam are monitoring include:

- Availability of fishing areas and rules regarding fishing as well as fish prices
- Arctic cisco (*Coregonus autumnalis*) in the Lena River in summer and autumn (catch, size and time of occurrence)
- Water quality in Lena River
- Siberian cisco (*Coregonus sardinella*) in the Lena River during winter time (catch, size and time of occurrence)
- Lake fish (Peled - *Coregonus peled*, Siberian whitefish - *Coregonus lavaretus pidschian*)
- Reindeer husbandry (methods of reindeer husbandry support)
- Wild reindeer (population dynamics)
- Moose (distribution, population dynamics)
- Brown bear (population dynamics)
- Wolf (distribution, population dynamics)
- Sable (population dynamics)

Sakha Republic, Olenek, Kharyalakh and Zhilinda. Workshops were held in September 2018 and April 2019 in Olenek, Kharyalakh and Zhilinda. Here, involvement in CBM activities includes hunters and fishermen from Olenek; hunters, fishermen and herders from Kharyalakh; and hunters, fishermen and herders from Zhilinda; as well as school students and teachers from Olenek School. In summary, the natural resources and the main issues discussed were:

- Wild reindeer. The hunting of wild reindeer is the most important resource for the local communities of the area. The occurrence of wild reindeer is dynamic and changing. Hunting restrictions are not aligned with the actual numbers of wild reindeer. The local communities consider that the hunting quotas and licenses have been unreasonably reduced by the authorities. Overall, the population of wild reindeer has increased but major changes in abundance are occurring from year to year. Wolf predation on the wild reindeer population is significant. Major worries are that hunting of wild reindeer will be negatively affected by future developments, including industrial. A better understanding of wild reindeer migration routes is needed.
- Domestic reindeer. Olenek District used to have a large domestic reindeer production but this has decreased sharply in recent decades. Domestic reindeer production is facing many problems. One key issue is the very substantial wolf predation on the domestic herds, resulting in losses of up to 20-25% of the animals per year. Pasture quality is also an issue in reindeer herding.
- Wolf. There has been a sharp increase in the number of wolves. This is a major problem, especially for domestic but also for wild reindeer. The reason for this increase is considered to be a lack of effective wolf control measures.
- Industrial mining development. There were major concerns raised in all the villages with regard to the various ongoing and planned industrial developments in the area. The concerns relate to water pollution, air pollution (radioactive from rare earth metal mining) and to the blocking of reindeer migration routes and overutilization of living resources in and adjacent to the industrial sites.
- Water quality of the river. Drinking water quality is a major concern for people. The quality of fishing water is also important. There are fears that water quality is deteriorating.
- Sable. Sable are important for the fur trade although prices have reduced significantly. The population is considered to be stable.
- Brown bear. Numbers are increasing and people are increasingly afraid of encountering bears.
- Fish population, including Tugun, or Tugunok (*Coregonus tugun*), a small fish very important for the livelihood of the Olenek people, and Arctic grayling (*Thymallus arcticus*) are understood to be declining in the area. Fishing license policy does not currently support local people.
- Berries. Berries are very important for people and there is a need to ensure continued supply.

Key resources that the CBM groups in Olenek, in Kharyalakh and in Zhilinda are monitoring include:

- Wild reindeer
- Berries
- Brown bear
- Wolf

- Tugun, Tugunok (*Coregonus tugun*)
- Arctic grayling (*Thymallus arcticus*)
- Water quality
- Polar fox
- Sable
- Lenok (a fish) – (*Brachymystax lenok*)
- Pike
- Domestic reindeer and pasture quality

The general status of the CBM process is that local communities and local indigenous peoples' representatives are interested in and supportive of the CBM activities. CBM activities are well underway in a number of areas of Sakha Republic. The use of CBM is generally understood and seen as a relevant activity that will provide the local communities with an improved way of developing and presenting local knowledge on resources and resource use. Local authorities are supportive of the activities. The Republic Indigenous Peoples' (IP) organisation is taking a leading role in activities and ensuring linkages to the communities. Input from the CBM groups (information, analysis and recommendations) has been used by the Republic IP organisation to seek influence over the management of a number of subject areas related to resource management at both Republic and District level. Organising and communicating information is being undertaken using short and relevant forms, which are filled out by the CBM groups and which include resource information, analysis of information and suggested actions. A summary of the impacts of CBM activities so far includes:

- Project participation is linking well with the process of seeking to put the territories of traditional land use into practise rather than being merely a classification on paper, as they are now. The work with the CBM groups is helping the IPs to become more the *subjects* of the development of the traditional land rather than just the *objects* of its development. This contributes to more active local people. It also contributes to monitoring the various industrial developments (mining) that are being undertaken and planned on traditional territories. The CBM work is thus a tool that contributes to a dialogue between the extractive industries and the owners/users of the traditional lands.
- An *obshina* (community) in Zhigansk has obtained the rights to a traditional fishing ground partly because of its active participation in the CBM group project. This work empowered the obshina and gave extra clout to their process of obtaining the rights.
- Information on fishing and the challenging of fishing net sizes from the CBM groups, where the CBM groups have established that two most important fish – Siberian cisco and Arctic cisco – species are swimming deeper due to warmer waters and are therefore difficult to catch with the permitted net types. This action has been used by the IP organisation at several meetings with the Republic's authorities, who then refer the matter up to the Federal authorities.
- Information on brown bear problems has been promoted at several meetings with the Republic's authorities in order to seek better solutions by which local people can protect themselves from bear attacks.
- The information on wild reindeer hunting shows that this is very important and that local people are worried about its future due to industrial development (mines). The IP association has taken this to the mining company and agreed a monitoring programme for wild reindeer with them. Information on wild reindeer populations and their strong fluctuations, as well as the mismatch with set hunting quotas, is also being used to influence the authorities' decisions on management of reindeer hunting.

- Monitoring has raised problems of water pollution around the Alrosa diamond mining sites. The IP organisation has taken the problem of water quality monitoring to the District- and Republic-level authorities.
- Establishment of the CBM groups has generally resulted in much more important information reaching the IP association from the communities and this is proving useful in dialogues with the authorities.
- The IP organisation in Zhigansk District has become more active due to the introduction of the CBM activities.

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Annex 1. Minutes of CBM workshops and meetings in Olenek and Zhilinda, Sakha Republic 2019.

INTAROS/CSIPN Community-Based Monitoring Workshops

Report from meetings and workshops in Olenek and Zhilinda villages, Sakha (Yakutia) Republic, Russia 15th – 19th April, 2019

In April 2019, the INTAROS/CSIPN project team held workshops in the Olenek district of Sakha (Yakutia) Republic. The team included:

Martin Enghoff (NORDECO, Denmark) – project manager
Slava Shadrin (vice president of IP of Yakutia) – regional coordinator
Nikita Vronskiy (CSIPN, Russia) – national coordinator
Andrei Isakov (Yakutia) – interpreter

This report details the proceedings of the workshops in two villages (Olenek and Zhilinda) of the Olenek District from 15th to 19th April 2019. The workshops in Olenek were the follow ups from the workshops in the village in September 2018, whereas the workshops in Zhilinda were the first experience in that village.

Meeting in Olenek village, 15th April, 2019

The meeting took place in the district administration.

Agenda

- Meet the head of the district administration.
- General information about the region: development prospects and the possible impact of new industrial projects on the traditional economy of the indigenous population.
- CBM project presentation.

Meet the head of the district administration

The project team met with the head of the district for the first time. The CBM project started in Olenek in the fall of 2018, after the project team visited this place in September. But at that time, the project team failed to meet with the head of the district, as it was a hot period of local elections. The head, Mr. Alexander Ivanov, won the election for the second time in a row with a five-year term. Mr. Ivanov knew about the CBM project in general and now would like to learn of the action first hand in details. But first he told the project team about his area. In addition to the head of the district, several other people from the administration attended the meeting, as well as the local project coordinator Ms. Natalia Benchik.

General information about the region: development prospects and the possible impact of new industrial projects on the traditional economy of the indigenous population

Two major industrial projects, which will start soon, are of particular concern to the local population. Those are development of the Verkhne (Upper) Munskeye diamond deposit and development of the Tomtor rare earth metals. Mr. Ivanov also described the dynamics of biological resources in the area over the past 50 years, highlighting the dynamics of the wild reindeer population as the most important resource for the local communities.

CBM project presentation

In turn, the project team informed the head of the district administration about the project's progress in the Olenek district and about possible expanding the project's geography, including in its work indigenous community of Zhilinda village. In conclusion, Mr. Ivanov expressed the hope that this project could contribute to the involvement of the local community in the decision-making process when planning and implementing large industrial projects in the region.

Meetings/workshops in Zhilinda village, 16th April, 2019

The agenda for the day's work was as follows:

- Meeting with the head of the village administration and his deputy.
- Meeting/workshop at the local school.
- Meeting/workshop with local community representatives.

Meeting with the head of the village administration and his deputy

As on the previous day in the village of Olenek, work in Zhilinda began with a visit to the head of the village. The head of the local administration Mr. Nikolai Semenov and his deputy Ms. Margarita Nikolaeva hosted the project team in the local administration office. Mr. Semenov told about the village and its community: the population is 720 people; 4 economic communities (obschinas), one of which is engaged in reindeer herding, and three – mostly hunting wild reindeer. Then the head briefly outlined the social-economic life in the village, and among the most burning topics emphasized, as in Olenek, the development prospects of two large deposits – diamonds and rare earth metals (only 90 km away from the village).

The project team presented the CBM project, mentioning that school students in Zhigansk and Olenek participated in its implementation. Mr. Semenov enthusiastically reacted to this information and said that students in Zhilinda are actively participating in school research program. And that this is the case, the project team soon would make sure personally.

Meeting/workshop at the local school

It was a memorable event. Zhilinda's school has a little over 100 students; about 40 came to the meeting. Girls clearly prevailed – about 3/4 of the total number of participants. The meeting began with students' presentations: 4 girls presented the results of their research. One of the girls began her report in English. The selection of topics presented by the students and the quality of their research showed that local students could effectively participate in the CBM project.

After the presentations, the project team talked to the students. Slava told about large industrial projects that will soon have a significant impact on the life of the local community. It turned out that

the students were aware in general of the challenges that local people would face in this regard. The vast majority of the students plan to continue their education after school. When asked whether they were going to return to their village, about 70% of those present answered “yes”.

Then those students who would like to take part in the CBM project (about 20 students) were invited to a special workshop, which was held right there at the school. They were asked to name the possible objects of monitoring. Here is a complete list of the objects they suggested:

- Behaviour patterns of certain species of carnivorous mammals due to climate change.
- The dynamics trends of the game species fauna.
- Signs of climate change. Earth worms as an indicator group.
- Sacred places
- Fish (tugunok – *Coregonus tugun*)
- Berries
- Children's health
- Populations of carnivorous mammals
- Water quality in local rivers and lakes
- Local flora and vegetation. The use of plants in medicine
- The dynamics of wild reindeer migrations
- Insect populations

As a result, a school monitoring group was formed. The teacher – Ms. Daria Semenova – became the group coordinator.

Meeting/workshop with local community representatives

The working day ended with a meeting of the project team with representatives of 4 local indigenous communities. In fact, the meeting was attended by female representatives. There were 8 of them – all are not young. The head of the village administration participated in the workshop as a moderator. Later 5 more women and 1 man joined the meeting, but they were not active.

The workshop was held according to the traditional scenario: the project objectives, project work in Yakutia (Zhigansk and Olenek), examples of the project work in Greenland, project method, etc. Women enthusiastically joined in the discussion of the state of resources and suggested a list of objects that should be monitored:

- Water and air quality. Need for water tower to be constructed.
- Fish populations, reducing fish stocks
- Danger of radioactive contamination, the need for appropriate measurements
- Air transfer, impact of the Tomtor deposit development
- Unreasonable restrictions of wild reindeer hunting
- Wild reindeer migration routes dynamics

It was also emphasized that the development of a large deposit in Tomtor close to Zhilinda, causes great concern to local residents. No monitoring group was created at this meeting. It was assumed that such a group would be formed the next day at a meeting with wider community representation.

Workshop in Zhilinda village, 17th April, 2019

The workshop was held in the village head's office. A dozen men of stern look and different age, all hunters and fishermen, came to the meeting. The head of the administration presided and assumed the role of the main narrator. In fact, he himself stated the essence of the project. Slava was giving additional information, where it was needed, and explained the matrix and method of the monitoring work. He also described the local situation in relation to the already existing diamond mining and the future development of the rare earth metal deposit. Ms. Margarita Nikolaeva, the deputy head, was also present.

The participation in the workshop developed positively, and a list of possible monitoring objects was compiled:

- Wild reindeer populations
- Domestic reindeer, reindeer herding
- Fish – chir *Coregonus nasus* – populations in lakes
- Sable
- Wolf
- Water quality in the local river (Malaya Kuonamka)
- Pasture quality
- Berries
- Fish – *Thymallus arcticus* – population
- Bird game (ducks, geese) on migration
- Hunting and fishing licenses – the current situation is absolutely unsatisfactory

Thus, the forming a monitoring group at Zilinda village can be stated. Three persons were proposed as the group coordinators:

- Juri Poluektov (was not present, but was characterized by those present as a worthy candidate)
- Maria Semenova (agriculture department of the local administration)
- Margarita Nikolaeva, deputy head of the administration

The final approval of local coordinator is to be made later.

List of the Workshop Participants, Zhilinda Village 17th April

- Vyacheslav (Slava) Shadrin, Project regional coordinator (city of Yakutsk). Member of Association of Indigenous Peoples of Sakha (Yakutia) Republic. odul.shadrin@gmail.com, +7 914 229 48 31, +7 999 798 04 91
- Martin Enghoff, project manager, Copenhagen, Denmark
- Nikita Vronskiy, Project coordinator, Moscow), nvronski@gmail.com, +7-905-575-64-94
- Andrei Isakov, interpreter
- Nikolai Semenov, head of local administration
- Margarita Nikolaeva, deputy head
- Ivan Kirillov, reindeer herder and fisherman
- Leonid Khristoforov, deputy of local council

- Alexander Pavlov, reindeer herder
- Maria Semenova, agriculture department
- Aleksei Nikolaev, reindeer herder
- Nikita Phadeev, hunter
- Mikhail Innokentiev, hunter
- Artem Pavlov, hunter
- Aleksei Lukinov, hunter
- Iosif Nikolaev, hunter

Workshop in Olenek village, 18th April, 2019

The workshop was held in the Conference hall in the local administration. About 20 people attended the meeting (see the Participant List below).

The agenda for the workshop was:

- Slava's presentation: What does it mean to be a territory of traditional nature management (use)?
- CBM project: up to now progress and prospects.

The presentation of Slava was not directly related to the project. It should be noted that Slava Shadrin, being the vice-president of the Republican IP Association and in general an erudite and active public figure, is in demand at any meetings of the indigenous population. He always has something to discuss with the people, and the topics of discussion are very relevant. The Olenek district is officially called the national district, the absolute majority of its population is Evenki, and the entire district is legally recognized as the territory of traditional nature management (TNM). But, *de facto*, the opportunities provided by TNM status are far from being used in the district. It is about this that Slava spoke, with particular emphasis on the need to create a Public Council of the TNM. It should be noted that if such a Council is formed, its activities will obviously keep up with the development of the CBM project.

The second part of the workshop was directly related to the CBM project. Ms. Natalia Benchik, the local coordinator, told what had been done since October 2018, when the project began operating in the Olenek district. Natalia acknowledged that for the time being the work cannot be considered satisfactory. The matrix of the 4th quarter, 2018 is poorly composed. Nevertheless, Natalia expressed the belief that she can put the project work to a proper level, because the main thing for this – the interest of community members in the development of this project – is obviously present. The organizational side of the case requires strengthening. It should be borne in mind that the coordinator of the local monitoring group (Artem Vinokurov) still lacks the skill.

List of the Workshop Participants, Olenek Village 18th April

- The CBM Project Team
- Marina Nikolaeva, deputy head of administration, head of the agriculture department
- Anatolij Egorov, director of Municipal Unitary Enterprise "Olenek"
- Vassiliy Nikolaev, community (obschina) member
- Nikolai Popov, community (obschina) member
- Ivan Khristoforov, community (obschina) member

- Nikon Nikolaev, community (obschina) member
- Maxim Vassiliev, community (obschina) member
- Aleksei Sergeev, community (obschina) member
- Aleksei Pavlov, community (obschina) member
- Khristofor Nikolaev, community (obschina) member
- Valentin Nikolaev, community (obschina) member
- Marianna Vinokurova, community (obschina) member
- Maria Pavlova, community (obschina) member
- Olimpiada Nikolaeva, community (obschina) member
- Artem Vinokurov, community (obschina) member
- Stanislav Konstantinov, community (obschina) member
- Gavrik Nikiforov, community (obschina) member
- Mikhail Kutanov, state inspector

The following issues were discussed:

Wolf. The growing wolf population in the area has become a major problem for reindeer herding. The total number of domestic reindeer is 3200 animals. About 700 are killed by wolves annually. Also a certain amount of domestic reindeer are taken away by the wild ones during migration and mating period. The most effective way of dealing with wolves is shooting them from the air, but it has not yet been applied. It is necessary to introduce the practice of regulating wolf population number where the reindeer herding takes place. The CBM project could possibly help in appropriate decision making.

Wild reindeer meat is the basis of local nutrition. In order to have the right to hunt reindeer local people must get a license. But the license does not allow local people to get as much meat as they need to support their families. Scientists declare that numbers of wild reindeer are declining, while the local population does not think so. The CBM project could perhaps help resolving this conflict as well.

Meeting in Olenek village School, 18th April, 2019

Later this day the project team was invited to local comprehensive school where students of Olenek and Kharyalakh schools made presentations of their research. Most of the presentations (about 15 in total) related to the idea and themes of the CBM project and made a favourable impression both on the choice of the research topic and on the execution.

Meeting in Olenek village, 19th April, 2019

The meeting was held in the village administration. School teachers participated in the meeting on the part of locals – all women, as well as the head of the education department, also a woman – Ms. Maria Ivanova. The future work of the school monitoring group was discussed.

The students' potential in the project's work is great, this was demonstrated when their research projects were presented. But for successful work a good group coordinator is needed. Unfortunately, the former coordinator, who was chosen in September 2018, failed to lead the group properly. The new coordinator of the school monitoring group has become Ms. Varianna Koryakina, director of the

Centre of Additional Education for Children. Maria Ivanova (Department of Education) will oversee the activity of the group.

Annex 2. Minutes of CBM workshops and meetings in Zhigansk and Kystatyam, Sakha Republic 2018.

INTAROS/CSIPN Community-based Monitoring Workshops

Report from workshops in Zhigansk and Kystatyam villages, Sakha (Yakutia) Republic, Russia 6th – 10th September, 2018 and from Olenek village, Sakha (Yakutia) Republic, Russia 12-14th September 2018

This report details the proceedings of the workshops in Zhigansk District from 6th to 10th September 2018 and in Olenek District from 12th to 14th September 2018. The workshops in Zhigansk District was a follow up from the workshops in the same area in September 2017, whereas the workshops in Olenek District was the first workshop in that geographic area.

Workshop in Kystatyam village, Zhigansk District, 7th September, 2018

Workshop agenda

The agenda for the workshop was:

- Information on meeting and update on the project
- Presentation of CBM group work and resources monitored
- Discussion of CBM organisation and monitoring approach
- Planning for future work of the CBM group

Information on meeting and update on the project

As part of the Integrated Arctic Observation System (INTAROS) project, a community based monitoring (CBM) programme has been operating since 2017 in Kystatyam Village, Zhigansk District of Yakutia Republic of the Russian Arctic.

A workshop was undertaken between the members of community based monitoring group in Kystatyam and project representatives. In addition to the existing member of the monitoring group also some additional interested people from Kystatyam participated. Meeting with the village leader was also undertaken partly as part of the workshop. (for list of participants see list below).

The workshop was introduced by Vyacheslav (Slava) Shadrin and Nikita Vronski. Participants introduced themselves. The participants included several member of the local community based monitoring group including the local representative of the local indigenous peoples association. Included in the group was local fishermen, hunters and people working with reindeer herders – all from Kystatyam village area and all from the local indigenous group of Evenks. Representatives of Indigenous Peoples Association of Yakutia Republic, CSPIN and Nordeco also participated (see attached list of participants).

A short introduction to the objective of the workshop was made. The objective of the workshop was to inform about and discuss progress in the CBM activities in Kystatyam, Zhigansk District. Further, the workshop aimed at exchanging experience and building capacity on community based observing and management in the Arctic.

The project has continued for the last year and there has been contact and supervision provided throughout the period with the Indigenous Peoples Association having a leading role. The objective of promoting community based monitoring to enhance management of natural resources continues to be pursued. Findings from the community based monitoring group are being promoted and used to influence resource management regulations at different levels. Key partners in the project continues to be the local indigenous peoples communities at the local level, the Indigenous Peoples Association at the local and regional level and CSPIN at the national level and with Nordeco at the international level. The project will remain active throughout 2018 and 2019 and the community based monitoring activities are projected to be sustained and continue also after the formal project support is ending.

Presentation of CBM group work and resources monitored

In Kystatyam village, the fishing, hunting, forest product gathering and reindeer husbandry activities continues to be important and the members of the CBM group consists of those that are involved in or closely related to these different activities. The coordinator of the CBM group is Maria Grigorieva who is also the local village representative of the Indigenous Peoples Association. The members of the CBM group has developed during the period, a number of changes have occurred, and it now consists of eight) people (see list of participant). The CBM group has met a couple of times, but part of the monitoring information has also been gathered by the coordinator through individual meetings with different community members. The CBM group and the participants in the workshop confirmed their interest in undertaking community based monitoring and their belief in its importance.

The important resource management issues remain more or less the same as last year. For the time being, the fishing prices paid by the fishing company that have bought the license for all fishing in the area and who allows local fishermen to fish if they sell to them only, are considered to be reasonable. It is, however, also recognised that this could change without the people in Kystatyam being able to do much about it. A proposal by the company to bring in its own fishing boats and fishermen to the licensed area was turned down by the district authorities due partly to the status of Zhigansk District as a National Evenk District.

The resources monitored in Kystatyam include domestic reindeer, sable, Arctic cisco and Siberian whitefish. The information provided through the reporting matrixes from the group shows that domestic reindeer is decreasing and that increasing wolf predation is one of the reasons. The decrease in domestic reindeer calls, according to the group, for programmes to develop domestic reindeer herding. Sable is possibly stable as gathered from community members although the group has observed fewer sable. Hunting regulations are reported important to respect. For both Arctic cisco and Siberian whitefish/Siberian cisco, there has been a significant decrease in numbers fished. This is attributed to climate change (with changing water temperatures).

Further, the meeting also discussed the importance of other resources previously mentioned. Of these, it was established that Sturgeon was difficult to monitoring as it was far too sensitive as all fishing of Sturgeon by local people in Kystatyam was prohibited by federal law. Wild reindeer was found too difficult to monitor due to distance and limited hunting. Moose was also difficult to monitor, but the CBM group proposed to include it in the future. Brown bear and wolf was also proposed to include in the monitoring. Availability of fishing areas, access to fishing area and fish prices was also proposed to be included.

Hence, the list of resources for Kystatyam is:

- Domestic reindeer
- Sable
- Arctic cisco
- Siberian whitefish/Siberian cisco
- Availability and access to fishing area and fish prices

- Moose
- Brown Bear
- Wolf

The CBM group has not fully utilised the matrix reporting so too few matrixes based on discussions in the group have been filled out, and the meetings to discuss the resources have not been enough. Further, a number of the resources that was originally decided by the participant as important to monitor has not been included in the work. The matrixes filled out have only partially been reflecting changes or trends as compared to same seasons the previous year. The group recognised these limitations and agreed to work on and adjust its approach.

Discussion of CBM organisation and monitoring approach

The workshop continued to discuss the CBM procedures and information on best practises in undertaking the CBM process were provided. It was stressed that the CBM organisation was depending on an active group with a coordinator that called for meetings and functioned as reporter in relation to the matrixes. Further, the coordinator should be in regular contact with the IP Association, and it should be ensured that meetings and reporting was done quarterly and based on the quarter that had just ended, so meeting should to the extent possible be in January for the last quarter of the previous year (fourth quarter), in April for the first quarter, July for the second quarter, October for the third quarter. Possibilities for doing the meeting towards the end of the actual quarter were also agreed. The importance of the discussion of trends and tendencies as compared to same time the previous year was stressed. Further, the workshop expressed the importance of the CBM group doing the analysis and of providing recommendations.

The matrix for reporting was discussed and advises on how to further improve its use was provided. Examples of filled out matrixes was presented and jointly, as an example, the workshop filled out information from the group on Arctic cisco during the last quarter.

The IP Association expressed how important it was for them to receive the information from the CBM groups and how important their ideas for recommendations was for the Association. It was made clear that the Association could use these to conduct dialogues with and influence authorities in relation to regulations and other management activities related to the authorities. Further, it was stressed that direct communication with local authorities in the District through the use of the findings in the matrixes was important. The important advocacy opportunities associated with the CBM work was reaffirmed by the CBM group.

Planning for future work of the CBM group

It was agreed that the CBM group should seek to include some more members and that a list of members should be shared with the regional coordinator. Also date for meeting in October should be fixed and during this meeting, the second and third quarter of 2018 should be filled into the matrixes. The updated list of resources to be monitored and the date for the October meeting should be shared with the regional coordinator. The adjustment in the approach to the monitoring, meetings, and matrices will be undertaken. Following the October meeting, the filled out matrix should be shared as fast as possible with the regional coordinator. The group will meet regularly every 3 months and fill out the matrices and share their observations. Close communication and follow up to the CBM group by the regional coordinator Vyacheslav (Slava) Shadrin will be undertaken.

List of the Workshop Participants, Kystatyam Village 7th September

- Vyacheslav (Slava) Shadrin, Project regional coordinator (city of Yakutsk). Member of Association of Indigenous Peoples of Sakha (Yakutia) Republic. odul.shadrin@gmail.com, +7 914 229 48 31, +7 999 798 04 91
- Nikita Vronskiy (Project coordinator, Moscow), nvronski@gmail.com, +7-905-575-64-94

- Mariya Grigorieva (local representative of indigenous peoples organisation)
- Leonid Mikhailov (hunter)
- Ivan I. Vasiliev
- Innokentiy Sergeev (hunter)
- Vladimir Shadrin (fisherman)
- Savva Sergeev (local obschina)
- Stanislav Zakharov (local obschina)
- Dmitriy Semenov (local obschina)
- M. Vasilieva (local obschina)
- Martin Enghoff, project manager, Copenhagen, Denmark
- Andrei Batyushkin, interpreter

Workshop in Zhigansk Village on 8th September

The agenda for the workshop was:

- Information on meeting and update on the project
- Presentation of CBM group work and resources monitored
- Discussion of CBM organisation and monitoring approach
- Planning for future work of the CBM group

Information on meeting and update on the project

As part of the Integrated Arctic Observation System (INTAROS) project, a community based monitoring (CBM) programme has been operating since 2017 in Zhigansk Village, Zhigansk District of Yakutia Republic of the Russian Arctic.

A workshop was undertaken between the members of community based monitoring group in Zhigansk and project representatives. The workshop was introduced by Vyacheslav (Slava) Shadrin and Nikita Vronski. Participants introduced themselves. The participants included several member of the local community based monitoring group including the local representative of the local indigenous peoples association. Included in the group was local fishermen and hunters – all from different obshinas in Zhigansk and all from the local indigenous group of Evenks. Representatives of Indigenous Peoples Association of Yakutia Republic, CSPIN and Nordeco also participated (see attached list of participants). The participants in the workshop was most of the members of the community monitoring group and was largely the same members as participated in 2017 meeting.

A short introduction to the objective of the workshop was made. The objective of the workshop was to inform about and discuss progress in the CBM activities in Zhigansk Village, Zhigansk District. Further, the workshop aimed at exchanging experience and building capacity on community based observing and management in the Arctic.

The project has continued for the last year and there has been contact and supervision provided throughout the period with the Indigenous Peoples Association having a leading role. The objective of promoting community based monitoring to enhance management of natural resources continues to be pursued. Findings from the community based monitoring group are being promoted and used to influence resource management regulations at different levels. Key partners in the project continues to be the local indigenous peoples communities at the local level, the Indigenous Peoples Association at the local and regional level and CSPIN at the national level and with Nordeco at the international level. The project will remain active throughout 2018 and 2019 and the community based monitoring activities are projected to be sustained and continue also after the formal project support is ending.

Presentation of CBM group work and resources monitored

In Zhigansk village, the fishing, hunting and forest product gathering activities continues to be important and the members of the CBM group consists of those that are involved in or closely related to these different activities. The coordinator of the CBM group is also the local village representative of the Indigenous Peoples Association. The members of the CBM group has been stable during the period and consists of around ten people (see list of participant). The CBM group has met regularly and have discussed and filled in the matrixes. The CBM group has produced relevant and important matrixes for all the quarters since the start. The CBM group and the participants in the workshop confirmed their interest in undertaking community based monitoring and their belief in its importance.

The important resource management issues remain more or less the same as last year. The resources monitored in Zhigansk include wild reindeer, sable, brown bear, moose, Arctic cisco and Siberian whitefish/Ryapusha. The information provided through the reporting matrixes from the group shows that moose and sable is stable. That wild reindeer at times have become more but at others (and most) have decreased. For the all important fish it shows that both for Arctic cisco and Siberian whitefish, there has been decreased in numbers fished for most of the months and only increase in few months.

Participants presented the work and progress made. Participants also explained about how the CBM work has contributed to the establishment of some traditional rights in specific areas for one of the obshinas.

Participants discussed with concern the late arrival of Siberian whitefish (ryapushka – *Coregonus sardinella*) and Arctic cisco (*Coregonus autemmalis*) in the middle reaches of the Lena River, where Zhigansk is located. There were two main assumptions: 1) excessive commercial catch in the Lena Delta and 2) water pollution due to a recent accident at a diamond mining enterprise on the Lena's tributary – the Vilyui River. Both of these fish species are the basis of the local communities' food supply. In this regard, it is necessary to organize water quality control – set up the appropriate laboratory in the Zhigansk village. Checking of water quality is a central issue.

The real trouble for local communities is the practice of auctions for the right to fish in the Lena River. Local communities do not have the means to oppose large commercial companies and therefore gradually lose the best fishing sites. These places are occupied by companies that have won an auction, and local residents are not allowed to enter these places.

At the workshop, a proposal was made to organize fish farming in the Zhigansk area.

An interesting discussion arose regarding the allowed width of fishing nets. According to the general opinion of the audience, the depth of the nets should be increased, as recently the fish began to go closer to the bottom and thus avoid the nets. The reason for the change in the depth of occurrence of fish is believed to be the change in river water temperature, its warming. Would be useful to have further appropriate research on this.

Discussion of CBM organisation and monitoring approach

The workshop continued to discuss the CBM procedures and information on best practises in undertaking the CBM process were provided. It was stressed that the CBM organisation was depending on an active group with a coordinator that called for meetings and functioned as reporter in relation to the matrixes. The active work of the CBM was noted and appreciated. The coordinator should be in regular contact with the IP Association, and it should be ensured to continue that meetings and reporting was done quarterly and based on the quarter that had just ended, so meeting should to the extent possible be in January for the last quarter of the previous year (fourth quarter), in April for the first quarter, July for the second quarter, October for the third quarter. The importance of the discussion of trends and tendencies as compared to same time the previous year was stressed,

something that the CBM group has undertaken well. Further, the workshop expressed the importance of the CBM group continuing to do the analysis and of providing recommendations.

The matrix for reporting was discussed and advises on how to further improve its use was provided. Examples of filled out matrixes was presented and jointly discussed.

The IP Association expressed how important it was for them to receive the information from the CBM groups and how important their ideas for recommendations was for the Association. It was made clear that the Association could use these to conduct dialogues with and influence authorities in relation to regulations and other management activities related to the authorities. Further, it was stressed that direct communication with local authorities in the District through the use of the findings in the matrixes was important. The important advocacy opportunities associated with the CBM work was reaffirmed by the CBM group.

Planning for future work of the CBM group

It was agreed that the CBM group should seek to continue its work. Also date for meeting in October should be fixed and during this meeting and matrixes should be filled out accordingly. Following the October meeting, the filled out matrix should be shared as fast as possible with the regional coordinator. The group will meet regularly every 3 months and fill out the matrices and share their observations. Close communication and follow up to the CBM group by the regional coordinator Vyacheslav (Slava) Shadrin will be undertaken.

Workshop in Zhigansk School on 9th September

First the project undertook, a general school meeting done to inform more generally about project. Following that a meeting was undertaken with the new coordinator (Saldan Ivanov – a teacher) for the project activities at school and with five school students that have implemented research projects related to the project. The project has been implemented with students having specific research topics related to CBM. There have been outcomes although, the outcomes have not been reported in matrixes. One project on fish parasites show increase in parasites, another project on local food availability shows that it is getting more difficult to access local produced food, another on water quality shows that water quality is an issue in some rivers/streams. Possibly, more students will join the project. It was agreed that there needs to be more clarity on how to fill out matrixes and link with the CBM activities including linking with the regional coordinator/IP organisation.

Meeting with Zhigansk Newspaper on 9th September

Project background explained - stressed the role of local IP - stressed the options of influencing to the rights of IPs - the project explained well (about local knowledge, common knowing, it is not research but for people own interest, fit with daily work, school also involved, it is for self-governance)

Meeting in Zhigansk District with ecology inspectors on 10th September

Explained about adapting to local conditions, about value of local knowledge, about international experience, about relation to ecology, about recommendations from project from group to municipal level, to republic, to federal with the IP association as the main coordinator and with IP association represented at all levels - even the inspectors/the department want to make changes to regulations as they know the districts are all different – local IP association representative presented very strong words on problems of water quality and that inspectors are doing nothing - agreed on need to have more dialogue on rules and regulations with communities.

Meeting in the Administration of the Olenek Village, Olenek District on 12th September

The project team presented the project. Apart from presenting the objectives and procedures in the CBM project the presentation also stressed that in the areas there are and will be lots of industrial development (mining), therefore there is need for monitoring. The participants agreed that it was an important project, which should be in all settlements. It should 1st October and start with three groups.

The participants discussed important resources for people in the district. These resources should also be included in the monitoring:

- Wild reindeer (the most important resource harvested by people in the district, need to be monitored)
- Berries (very important)
- Brown Bear (many and dangerous)
- Wolf (a great problem in reindeer husbandry)
- Tugun, tugunok *Coregonus tugun* – (small fish, very important for livelihood)
- Arctic Grayling *Thymallus arcticus* - (a fish, also important)
- Water quality (essential for fishing and drinking water)
- Polar fox
- Sable (important for hunting)
- Lenok (a fish) – *Brachymystax lenok*
- Pike
- Domestic reindeer (important in the district, need to monitor quality of pasture)

A group coordinator was agreed – Artem Vinokurov, a hunter and a specialist in reindeer husbandry. There is another village named Kharyalakh, on the opposite bank of the Olenek river; the local population should also be involved in the project. It would be good if one more village of the District – Zhilinda (about 300 km from Olenek) – joined the project. It was also decided that the general supervision of the project in the Olenek District will be carried out by Ms. Natalia Benchik, head of local IP organization.

List of the Meeting Participants, Olenek Village 12th September

- Octyabrina Ivanova – director of “Zhilindinskiy” municipal unitary enterprise
- Evdokiya Grigorieva – member of the village council
- Elena Konstantinova – member of local community (obcshina)
- Maria Pavlova – member of local community (obcshina)
- Olimpiada Nikolaeva – member of local community (obcshina)
- Anatoliy Egorov – director of “Olenekskiy” municipal unitary enterprise
- Ivan Khristophorov – head of local community (obcshina)
- Kolodeznikov – Agriculture Department
- Alexandra Yapkunova – chief architect of the village
- Vassiliy Nikolaev – head of a local municipal enterprise
- Sardana Nikolaeva – founder of a local commercial enterprise
- Marianna Vinokurova – member of local community (obcshina)
- Anna Nikolaeva – a teacher
- Artem Vinokurov – reindeer herding specialist in Agriculture Department
- Natalia Benchik – head of local IP organization
- Aita Vinokurova – member of the village council

Meeting in Kharyalakh village School 13th September

The project team had a meeting with the local school to present about the CBM project. Meeting at local school attracted 17 high and middle school students (8 boys and 9 girls). Also 3 teachers were present. Before presenting the project itself, Slava Shadrin told the audience about the prospects for the industrial development of the Olenek District and about the negative changes that this development could have on traditional economy. To the question which of the students present is going to work in the traditional economy, no one answered in the affirmative.

Meeting in Kharyalakh village, 13th September

The project had a meeting in Kharyalakh village, which is just across the river from Olenek. The project was explained to the participants. It was made clear that it was a tool for making the local knowledge be listened to more. Participants were clearly interested in participating in the project. They believed that it should be all obshinas. There is also lot of worries about the industrial development (mining) impact on livelihoods now and in the future. Changes in environment are seen not only due to industrial developments but also changes due to changing climate. The participants would go on to further discuss the project with hunters and fishers. Agreed that the local IP organisation should be in charge ((Natalia Benchik). Resources were discussed and agreed:

- Tugunok
- 'Taimen' (*Hucho taimen*)
- Lake fish
- Wild reindeer (decreasing; monitoring of migration route dynamics is needed)
- Water quality

List of the Meeting Participants, Kharyalakh Village 13th September

- Vladislav Nikolaev – Head of Kharyalakh Administration
- Ivan Opolov – Head of Eik Administration
- Ivan Kucherov – director of local enterprise
- Yana Samsonova – a teacher, member of the village council
- Eleonora Alekseeva – head of a local enterprise
- Nadezda Kolodova – member of a local obcshina
- Klara Kirillova
- Rosa Kombagir – an official
- Raisa Ammosova – head of a local obcshina
- Rosaliya Tomskaya – local obcshina
- Natalia Priyanova – head of local IP organization
- Liliya Esipova
- Irina Khristophorova
- Rozaliya Semenova
- Vera Semenova
- Anna Stepanova
- Svyatoslav Konstantinov – head of a local obcshina

Meeting in Newspaper office, Olenek 14th September

The project met with the local newspaper. Meeting was with Ms. Gulnara Baitildina, the chief editor of the local newspaper. They were very interested in communicating about project and had already reported on the meetings. Exchange of views on the CBM project and upcoming industrial development projects of the Olenek region; how the CBM project could contribute to solving the environmental problems of the local communities. Apart from involving the local communities, it was discussed that it would also be important to involve the scientific community in the monitoring process.

Meeting at Olenek School, 14th September

It was an organizational meeting, without students. The future work of the school group was discussed. Ms Varianna, Supplementary Education Centre, is to be a coordinator of the group. The wish was expressed to post information about the project on the website of the Republican IP Association.

Annex 3. Minutes of CBM workshops and meetings in Zhigansk and Kystatyam, Sakha Republic 2017.

INTAROS Community-based Monitoring Workshops

Report from workshops in Zhigansk, Yakutia Republic, Russia 15th – 18th September, 2017

Workshop in Zhigansk Village/District HQ on 15th September

Workshop agenda

The agenda for the workshop was:

- Background and introduction to the workshop
- Presentation and discussion of INTAROS
- Presentation and explanation of CBM programme and CBM practises
- Discussion of resource management issues
- Discussion of resources to be monitored
- Discussion of organisation of CBM activities and formation of group
- Practical work on filling out CBM matrixes (documentation and communication)
- Agreements and planning next steps

Background and Introduction to the workshop

The workshop was introduced by Vyacheslav (Slava) Shadrin and Nikita Vronski. Participants introduced themselves. The participants included head of the local indigenous peoples organisation and a number of local fishermen and hunters from the Zhigansk village area and participants from the republic indigenous peoples organisation, CSPIN and Nordeco. Totally, representatives of 6 local communities in the Zhigansk area were present (see attached list of participants). A short introduction to the objective of the workshop and the project was made.

The objective of the workshop was to inform about and develop a CBM programme in Zhigansk. Further, the workshop aimed at providing input to an exchange of experience in community based observing and management in the Arctic. As part of the Integrated Arctic Observation System (INTAROS) project, a community based monitoring (CBM) programme was introduced in the Zhigansk District of Yakutia Republic of the Russian Arctic. In Zhigansk, the vast majority of the people are indigenous Evenks. Zhigansk is a National Evenk District with a special status that promotes the culture of the Evenk people.

Fishing, reindeer husbandry, hunting and gathering of forest/tundra products are important economic and livelihood activities of the people of the Zhigansk District. The status and use of natural resources in Zhigansk is considered to be representative of livelihoods in the large areas of taiga/tundra transition zone of the Russian Arctic. The CBM programme is one of a number of CBM programmes being run in the Russian Arctic and of which CSPIN is involved in.

Presentation and discussion of INTAROS

Martin Enghoff presented the Integrated Arctic Observation System (INTAROS) project and explained how the Zhigansk community based monitoring programme can link up with the project. INTAROS is an effort funded by the European Union to extend and improve existing and evolving observing systems encompassing land, air and sea in the Arctic. INTAROS involves 49 participants

from 20 countries, and there is a component, which is focussing on community-based monitoring. INTAROS is able to collaborate with the CBM programme in Zhigansk. A discussion of the linkages with other CBM activities and other INTAROS activities took then place.

Presentation and explanation of the CBM programme and CBM practises

The project was then presented by Martin Enghoff. Presentation was made of the background for the project and its objectives of promoting the use of local and traditional knowledge to document and manage the living natural resources. The science behind the project and the international experience was presented. Specific examples of how similar activities are working in Greenland were presented and the various specific activities to undertake in the project were being highlighted. Questions and answers on the project and an overview and discussion of practises in implementing the community based documentation and monitoring were being undertaken.

Resource management issues in Zhigansk

The workshop undertook a discussion of resource management issues faced by people in Zhigansk. All participants were providing inputs and all people present came up with resource management issues. The key issues are:

- **Fishing grounds and fishing** is being taken over by outside companies. Major change in law on hunting and fishing took place some years ago with laws then allowing for hunting and fishing to be bought, controlled and monopolised by outside companies through a system of auctions. Different districts have since then experienced big problems in terms of denied access to fishing and hunting. The resources/places are bought by big outside companies and large amounts are paid. This is happening in more and more places. In Zhigansk District, this happened two-three years ago. What happened was that all locals, when fishing was to start, were asked to leave (by threat of military). Although IP demonstrations were organised in the Republic and the IPs threatened to boycott the state Duma election, this only helped in terms of changes related to hunting areas, which was eventually signed as belonging to local people. But not fishing areas, which is by far the most important for people. Fishing area auctions are still on going and companies control the fishing, only subsistence fishing is allowed, and all selling of fish by local people can only legally be done if done to the companies and at their conditions. So access to fishing grounds and fish resources are severely restricted for local people. What is happening to the fishing areas and with the fish resources is of crucial importance locally.
- Different **species of fish** are especially important for people and see major changes as well as access to the fish.
- **Lake fishing** is an important livelihood and lake fishing is seeing major changes, which are impacting on peoples opportunities for livelihood.
- The **water quality** in the Lena River is changing at times it is believed to have a major impact on fishing and on availability of drinking water.
- **Domestic reindeer** industry is considered to be in a crisis and now there is only few as compared to before (3000 compared 20.000 in the area). This is a problem. There is reportedly plenty of pastureland, so this is not the problem. It is difficult to have new young people taking up reindeer husbandry. Discussion the causes for the decline and what to monitor in this respect.
- **Wild reindeer** constitute an important resource in some of the area and important also for hunting. It is, however, decreasing so it is important to know more about their numbers and movement.
- **Moose** is an important food. The population is decreasing. Hunting rules, such as the need not to shoot females are not respected.

- **Sable** is in the district a traditional important animal to hunt for the fur trade. The income from hunting sable has been reduced significantly
- **Wolf** is increasing in numbers and this is considered to be worrying with increasing threat to domestic reindeer and to people.
- There are a growing number of **brown bears** that causes threat to local population with growing number of attacks and encounters close to villages. There is a lack of opportunities for locals to actually control numbers of brown bears, this is due to lack of license for hunting bear. More people are afraid of going to forest.
- **Stray dogs** attack people and they are increasing as they are not allowed to be shot

List of resources to monitor in the CBM programme in Zhigansk area

The workshop then moved on to discuss the key resources to be monitored and developed a list of such resources. The list is a long list that will form the basis for the monitoring:

- Fishing (monitoring of how fishing area are being managed and how rules applied)
- Siberian cisco (*Coregonus sardinella*) in Lena river in winter time (catch size and timing approach to Zhigansk area)
- Arctic cisco (*Coregonus autumnalis*) in Lena river in summer and autumn (catch size and timing approach to Zhigansk area)
- Water quality in Lena river
- Lake fishing (various species' – catch, size)
- Reindeer husbandry (numbers, pasture quality)
- Wild reindeer (population dynamics, migration routes)
- Moose (distribution, population dynamics)
- Sable (population dynamics, catch, size)
- Wolf (population dynamics)
- Brown bear (population dynamics, encounters close to villages, attacks)
- Stray dogs (numbers seen, attack on game and people)

Discussion of organisation of CBM activities and formation of a group

The workshop discussed the organisation of the CBM activities. Various options for how to organise the activities and how to form a group were presented and discussed. The importance of undertaking CBM as a way of addressing the rights of the indigenous people of the area was stressed by many. It was understood, that the monitoring will provide important information on changes and status of resources as well as input to advocacy. As in other areas, the local people believed that interaction with the authorities was a key problem that the CBM programme should seek to address.

It was agreed by the participants to form a group and get involved in the CBM programme. The CBM programme will monitor key resources that are important to people in the area. There are significant changes in status of many different resources and it is important to try to understand the reasons for the change. The CBM programme will be attempting to do this.

It was clear that the evidence from the observation and monitoring could be used in the work to promote better fishing and hunting management with better observance of rights to local indigenous communities. The results of the monitoring will be collected by the indigenous people organisation locally and shared with the umbrella indigenous people organisation in the Republic and with CSIPN.

Mrs. Lidiya Atlasova was elected Project moderator/coordinator of Zhigansk community group.

Practical work on filling out CBM matrixes (documentation and communication)

The workshop then proceeded to highlight how the practical work of filling out the CBM matrixes adapted for communities in Russia and used for documentation and for communication of the results should be undertaken. Examples were provided and discussions on how to use the matrixes were held.

Agreements and planning next steps

It was then agreed that the CBM group should seek to further establish themselves during the coming month and that the group should seek to meet regularly every 3-4 months and fill out the matrixes and share their observations. Follow up by the regional coordinator Vyacheslav (Slava) Shadrin would be undertaken.

List of the Workshop Participants

Zhigansk Village 15th September

- Vyacheslav (Slava) Shadrin, Project regional coordinator (city of Yakutsk). Member of Association of Indigenous Peoples of Sakha (Yakutia) Republic. odul.shadrin@gmail.com, +7 914 229 48 31, +7 999 798 04 91
- Nikita Vronskiy (Project coordinator, Moscow), nvrnski@gmail.com, +7-905-575-64-94
- Lidiya Atlasova (Head of Local Indigenous Peoples' Organization)
- Nikolai Sivtsev (hunter)
- Valerii L'vov (hunter, fisherman)
- Egor Nikolaev (hunter)
- Nikolai Migalkin (hunter, fisherman)
- Afanasii Stepanov (hunter)
- Nikolai Vinokurov (hunter, fisherman)
- Dmitrii Ivanov (hunter)
- Vladimir Innikentiev (hunter, fisherman)
- Egor Romanov (fisherman)
- Anatolii Konstantinov (hunter, fisherman)
- Vyacheslav Sofronov (hunter, fisherman)
- Martin Enghoff, project manager, Copenhagen, Denmark
- Andrei Batyushkin, interpreter

Workshop in Kystatyam village 16th September, 2017

Workshop agenda

The agenda for the workshop was:

- Background and introduction to the workshop
- Presentation and discussion of INTAROS
- Presentation and explanation of CBM programme and CBM practises
- Discussion of resource management issues in Kystatyam
- Discussion of resources to be monitored
- Discussion of organisation of CBM activities and formation of group
- Practical work on filling out CBM matrixes (documentation and communication)
- Agreements and planning next steps

Background and Introduction to the workshop

The workshop was introduced by Vyacheslav (Slava) Shadrin and Nikita Vronski. Participants introduced themselves. The participants included the local representative of the local indigenous peoples organisation and a number of local fishermen, hunters and reindeer herders from Kystatyam village area and participants from the Republic indigenous peoples organisation, CSPIN and Nordeco. Totally, representatives of 5 local communities in the Zhigansk area were present (see attached list of participants). A short introduction to the objective of the workshop and the project was made.

The objective of the workshop was to inform about and develop a CBM programme in Kystatyam, Zhigansk District. Further, the workshop aimed at providing input to an exchange of experience in community based observing and management in the Arctic. As part of the Integrated Arctic Observation System (INTAROS) project, a community based monitoring (CBM) programme was introduced in Kystatyam Village, Zhigansk District of Yakutia Republic of the Russian Arctic. In Kystatyam, all the people are indigenous Evenks.

Fishing, reindeer husbandry, hunting and gathering of forest/tundra products are important economic and livelihood activities of the people of Kystatyam. The status and use of natural resources in this village is considered to be representative of livelihoods of small isolated indigenous communities in the large areas of taiga/tundra transition zone of the Russian Arctic. The CBM programme is one of a number of CBM programmes being run in the Russian Arctic and of which CSPIN is involved in.

Presentation and discussion of INTAROS

Martin Enghoff presented the Integrated Arctic Observation System (INTAROS) project and explained how the Zhigansk community based monitoring programme can link up with the project. INTAROS is an effort funded by the European Union to extend and improve existing and evolving observing systems encompassing land, air and sea in the Arctic. INTAROS involves 49 participants from 20 countries, and there is a component, which is focussing on community-based monitoring. INTAROS is able to collaborate with the CBM programme in Kystatyam. A discussion of the linkages with other CBM activities and other INTAROS activities took then place.

Presentation and explanation of the CBM programme and CBM practises

The project was then presented by Martin Enghoff. Presentation was made of the background for the project and its objectives of promoting the use of local and traditional knowledge to document and manage the living natural resources. The science behind the project and the international experience was presented. Specific examples of how similar activities are working in Greenland were presented and the various specific activities to undertake in the project were being highlighted. Questions and answers on the project and an overview and discussion of practises in implementing the community based documentation and monitoring were being undertaken.

Resource management issues in Kystatyam

The workshop undertook a discussion of resource management issues faced by people in Kystatyam. All participants were providing inputs and all people present came up with resource management issues. The key issues are:

- **Fishing grounds and fishing** is being taken over by outside companies. Kystatyam is within the water bodies that have auctioned to outside fishing companies. A company, Baikal Fishing Company, moved into the area two years ago. It has set up facilities in the village. Fishing is the most important livelihood in Kystatyam. Fishing area auctions are still going on and now companies control the fishing, only subsistence fishing is allowed, and all selling of fish by local people can only legally be done if done to the companies and at their conditions. So access to fishing grounds and fish resources are severely restricted for local people. What is happening to the fishing areas and with the fish resources is of crucial importance locally.
- The changes in **fish prices** is of key importance for people and something that the buying company can dictate.
- Different **species of fish** (White salmon *Salmo Salar*, Arctic cisco *Coregonus autumnalis* and Siberian cisco *Coregonus sardinella*) are especially important for people and see major changes as well as access to the fish.
- **Sturgeon** is important and with severe restrictions on access
- **Lake fishing** and especially in relation to Peled - *Coregonus peled* and Siberian whitefish - *Coregonus lavaretus* is an important livelihood and lake fishing is seeing major changes, which are impacting on peoples opportunities for livelihood.
- **Domestic reindeer** industry is considered to be in a crisis and now there is only few as compared to before (3000 compared 20.000 in the area). This is a problem. There is reportedly plenty of pastureland, so this is not the problem. An issue is the methods and measures for organising and supporting reindeer husbandry, which is not conducive for the industry. Availability of the right reindeer lichen is an area that needs better understanding.
- **Wild reindeer** constitute an important resource in some of the area and important also for hunting. It is, however, decreasing so it is important to know more about their numbers and movement.
- **Moose** is an important food. The population is decreasing. Hunting rules, such as the need not to shoot females are not respected.
- **Sable** is in the district a traditional important animal to hunt for the fur trade. The income from hunting sable has been reduced significantly
- **Wolf** is increasing in numbers and this is considered to be worrying with increasing threat to domestic reindeer and to people.
- There are a growing number of **brown bears** that causes threat to local population with growing number of attacks and encounters close to villages. There is a lack of opportunities for locals to actually control numbers of brown bears, this is due to lack of license for hunting bear. More people are afraid of going to forest.

List of resources to monitor in the CBM programme in Kystatyam area

The workshop then moved on to discuss the key resources to be monitored and developed a list of such resources. The list is a long list that will form the basis for the monitoring:

- Availability of fishing areas, access to fishing area and fish prices
- Arctic cisco (*Coregonus autumnalis*) in Lena river in summer and autumn (catch, size and timing approach to the local sites)
- Siberian cisco (*Coregonus sardinella*) in Lena river in winter time (catch, size and timing approach to the local sites)
- Sturgeon (population status)
- Lake fish (Peled - *Coregonus peled*, Siberian whitefish - *Coregonus lavaretus*) – catch, size
- Reindeer husbandry (methods of reindeer husbandry support)
- Wild reindeer (population dynamics)
- Moose (distribution, population dynamics)
- Brown bear (population dynamics)
- Wolf (distribution, population dynamics)
- Sable (population dynamics)
- Ermine (population dynamics)

Discussion of organisation of CBM activities and formation of a group

The workshop discussed the organisation of the CBM activities. Various options for how to organise the activities and how to form a group were presented and discussed. The importance of undertaking CBM as a way of addressing the rights of the indigenous people of the area was stressed by many. It was understood, that the monitoring will provide important information on changes and status of resources as well as input to advocacy. As in other areas, the local people represented believe that interaction with the authorities was a key problem that the CBM programme should seek to address.

It was agreed by the participants to form a group and get involved in the CBM programme. The CBM programme will monitor key resources that are important to people in the area. There are significant changes in status of many different resources and it is important to try to understand the reasons for change. The CBM programme will be attempting to do this.

It was clear that the evidence from the observation and monitoring could be used in the work to promote better fishing and hunting management with better observance of rights to local indigenous communities. The results of the monitoring will be collected by the indigenous people organisation locally and shared with the umbrella indigenous people organisation in the Republic and with CSIPN.

Mrs. Mariya Grigorieva was elected Project moderator of Kystatyam CBM group.

Practical work on filling out CBM matrixes (documentation and communication)

The workshop then proceeded to highlight how the practical work of filling out the CBM matrixes adapted for communities in Russia and used for documentation and for communication of the results should be undertaken. Examples were provided and discussions on how to use the matrixes were held.

Agreements and planning next steps

It was then agreed that the CBM group should seek to further establish themselves during the coming month and that the group should seek to meet regularly every 3-4 months and fill out the matrixes and share their observations. Follow up by the regional coordinator Vyacheslav (Slava) Shadrin would be undertaken.

List of the Workshop Participants

Kystatyam Village 16th September

- Vyacheslav (Slava) Shadrin, Project regional coordinator (city of Yakutsk). Member of Association of Indigenous Peoples of Sakha (Yakutia) Republic. odul.shadrin@gmail.com, +7 914 229 48 31, +7 999 798 04 91
- Nikita Vronskiy (Project coordinator, Moscow), nvrnski@gmail.com, +7-905-575-64-94
- Mariya Grigorieva (local representative of indigenous peoples organisation)
- Valeriy Koryakin (hunter)
- Leonid Mikhailov (hunter)
- Artur Il'inov (fisherman)
- Alexander Sergeev (reindeer herder)
- Sergei Vinokurov (reindeer herder)
- Innokentiy Sergeev (hunter)
- Vladimir Shadrin (fisherman)
- Vasiliy Vasiliev
- Grigoriy Grigorievich
- Taiana Ermolaeva
- Anna Gogoleva
- Inga Vasilieva
- Martin Enghoff, project manager, Copenhagen, Denmark
- Andrei Batyushkin, interpreter

Meeting with school students at Zhigansk. 18 September, 2017

Meeting agenda

The agenda for the meeting was:

- Background and introduction to the meeting
- Presentation of INTAROS project and CBM practises
- Resource management issues as understood by school participants
- Discussion of resources to be monitored
- Discussion of organisation of CBM activities and formation of group
- Practical work on filling out CBM matrixes (documentation and communication)
- Agreements and planning next steps

Background and Introduction to the meeting

The meeting was introduced by Vyacheslav (Slava) Shadrin and Nikita Vronski. The teachers and students present introduced themselves. 9th and 7th grade students and 3 teachers interested in CBM projects were present. (see attached list of participants). A short introduction to the objective of the meeting and the project was made.

The objective of the meeting was to inform about and develop a CBM programme in which the secondary school in Zhigansk could participate. As part of the Integrated Arctic Observation System (INTAROS) project, a community based monitoring (CBM) programme was introduced in the Zhigansk District of Yakutia Republic of the Russian Arctic. In Zhigansk, the vast majority of the people are indigenous Evenks. Zhigansk is a National Evenk District with a special status that promotes the culture of the Evenk people. School classes teach local culture and science that are relevant to the local culture and local use of resources. Fishing, reindeer husbandry, hunting and

gathering of forest/tundra products are important economic and livelihood activities of the people of the Zhigansk District.

Presentation of INTAROS and CBM practises

Martin Enghoff presented the Integrated Arctic Observation System (INTAROS) project and explained how the Zhigansk community based monitoring programme can link up with the project. INTAROS is an effort funded by the European Union to extend and improve existing and evolving observing systems encompassing land, air and sea in the Arctic. INTAROS involves 49 participants from 20 countries, and there is a component, which is focussing on community-based monitoring. INTAROS is able to collaborate with the CBM programme in Zhigansk. A discussion of the linkages with other CBM activities and other INTAROS activities took then place. Presentation was made of the background for the project and its objectives of promoting the use of local and traditional knowledge to document and manage the living natural resources. The science behind the project and the international experience was presented. Specific examples of how similar activities are working in Greenland were presented and the various specific activities to undertake in the project were being highlighted. Questions and answers on the project and an overview and discussion of practises in implementing the community based documentation and monitoring were being undertaken. Students and teachers showed a lot of interest in the presentation and in participating.

Resource management issues in Zhigansk as understood by the school participant

The students gave their input to what environment and resource management issues they believed were important in Zhigansk. The key issues presented were:

- **Air pollution** in Zhigansk village from the heating system is bad
- Problems with **water quality** and access to clean water for people living in Zhigansk village
- **Forests** are changing and increasing number of forest fires
- Problems with decreasing access to **fish and fishing**
- Changes in sightings and catch of **waterfowls**
- **Climate** is changing and more unpredictable weather
- Access to plants and **berries** is changing
- **Greening and cleaning** of Zhigansk village is not done well

List of resources to monitor by school students in the CBM programme in Zhigansk area

The meeting then moved on to discuss what and how to monitor the resources and issues. The list is a long list that will form the basis for the monitoring:

- Water quality in Lena river
- Forest fires and local forest conditions
- The ecological condition in the village (including the quality of the air - for example, in connection with the operation of local heating plant)
- Local road condition and greening of Zhigansk village
- State of local fisheries
- Game species (population dynamics)
- Signs of climate change
- Change in vegetation in relation to berry picking areas

Discussion of organisation of CBM activities and formation of group

The meeting discussed the organisation of the CBM activities. It was agreed that CBM was important as a way of being involved in projects with others, as a way of learning about the local environment, and also as way of giving student input to what should be done in the area. It was agreed by the participants to form a group and get involved in the CBM programme. The students were also

interested in attaining some form of certificates when they participate. Mrs. Lyudmila Efimova (representing the school in Bakhynai village in Zhigansk District) also expressed that the Bakhynai village school could participate.

Mrs. Raisa Petrova agreed to be a Project moderator of Zhigansk school students group.

Practical work on filling out CBM matrixes (documentation and communication)

The meeting then spend some time to explain how the practical work of filling out the CBM matrixes adapted for communities in Russia and used for documentation and for communication of the results should be undertaken. Examples were provided and discussions on how to use the matrixes were held.

Agreements and planning next steps

It was then agreed that the CBM group should seek to further establish themselves during the coming month and that the group should seek to meet regularly every 3-4 months and fill out the matrixes and share their observations. Follow up by the regional coordinator Vyacheslav (Slava) Shadrin would be undertaken.

List of the Workshop Participants

Zhigansk School 18th September

Vyacheslav (Slava) Shadrin, Project regional coordinator (city of Yakutsk). Member of Association of Indigenous Peoples of Sakha (Yakutia) Republic. odul.shadrin@gmail.com, +7 914 229 48 31, +7 999 798 04 91

Nikita Vronskiy (Project coordinator, Moscow), nvronski@gmail.com, +7-905-575-64-94

Lyudmila Efimova (community repr., Bakhynai village)

Lubov' Koryakina (teacher)

Raisa Petrova (teacher)

Lev Ivanov, 7th grade

Emil' Adyshov, 7th grade

Veronika Vinokurova, 7th grade

Alina Vasilieva, 7th grade

Nikita Petrov, 9th grade

Grirogyi Lyashenko, 9th grade

Ivan Okoneshnikov, 9th grade

Rostislav Sivtsev, 9th grade

Maxim Starostin, 9th grade

Andrei Ogurtsov, 9th grade

Maxim Androsov, 9th grade

Martin Enghoff, project manager, Copenhagen, Denmark

Andrei Batyushkin, translator

Annex 4. Minutes of CBM workshops and meetings in Komi-Izhma, Komi Republic 2017.

INTAROS Community-based Monitoring Workshop

Report of workshop in Komi-Izhma, Russia 11-9, 2017

Background and Introduction

A community based monitoring programme has been initiated in Komi Izhma area of the Komi Republic in Russia. The area is the main home area of the Komi Izhma people, specific ethnic group of Komi people. Hunting, fishing, gathering forest products and reindeer husbandry are important activities of the people in the Izhma area. The status and use of natural resources in Izhma is a representative sample of the very large arctic taiga zone within Russia.

Active users of natural resources in Izhma are participating in the community based monitoring programme. The CBM programme is one of a number of CBM programmes being run in Arctic Russia and of which CSPIN is involved in some.

The workshop was held in Izhma and involved participants from the community based monitoring programme in Izhma, from CSIPN and from Nordeco. The workshop followed up previous activities in the area.

The objective of the workshop was to further develop the programme in Izhma, Komi Republic and to get feedback on how it is working. Further, the workshop aimed at providing input to an exchange of experience in community based observing and management in the Arctic.

The workshop was introduced by Nikita Vronski (project coordinator, CSPIN) and Nicolai Rochev (regional coordinator, head of Komi-Izhma interregional public movement “Izvatas”). An introduction to the Integrated Arctic Observation System (INTAROS) was undertaken by Martin Enghoff (Nordeco).

Due to circumstances including the tragic disease and following death of the regional coordinator Nicolai Rochev, the CBM activities in Komi Izhma was later discontinued.

Workshop agenda

The agenda for the workshop was:

- Introduction to the workshop
- Presentation and discussion of INTAROS
- Resource management issues and organisation
- Status and progress of CBM activities
- Discussion of the status and work related to the CBM activities
- Discussion of status of relationships with different relevant government NRM authorities
- Future activities and practical issues

The workshop process

Introduction

The workshop was introduced by Nicolai Rochev and Nikita Vronski. Participants introduced themselves. The participants included a number of local hunters and fishermen representing five different villages and all active in CBM programme (see attached list of participants). A short introduction to the objective of the workshop was made.

Presentation and discussion of INTAROS

Martin Enghoff presented the Integrated Arctic Observation System (INTAROS) project and explained how the Komi, Izhma community based monitoring programme can link up with the project. INTAROS is an effort funded by the European Union to extend and improve existing and evolving observing systems encompassing land, air and sea in the Arctic. INTAROS involves 49 participants from 20 countries, and there is a component, which is focussing community-based monitoring. INTAROS is able to collaborate with the CBM programme in Izhma, Komi. A discussion of the linkages with other CBM activities and other INTAROS activities took then place.

Resource management issues and organisation

Nicolai Rochev presented the key aspects of the CBM programme. The CBM programme is involved in monitoring key resources that are important to people in the area. There are significant changes in status of many different resources and it is important to try to understand the reasons for change. The CBM programme is attempting to do this.

Interacting with government authorities in relation to resource management issues is changing constantly. There is a promising tendency - establishing an institution of so called “public environmental inspectors”; this institution is now being formed in the Republic. The regional office of this institution is being set up in Izhma district (in Izhma village). The leaders of the environmental movement in the area are determined and optimistic about this new institution, believing that through this body it will be possible to influence the Komi Republic level. Central authorities, through federal office are the regulator of most things related to management of the resources and the regulation continues to not fit well with the local realities (hunting dates, species management, etc).

The CBM programme has been working in Izhma district under the leadership of the Komi-Izhemtsy public organisation (“Izvatas”) which works in cooperation with district authorities to manage hunting and fishing resources provided under an agreement with Komi Republic (regional) authorities.

Locally, one of the main problems is that traditional rules for use of resources (hunting and fishing) are forgotten – the local start and stop of hunting and fishing of different species and in different areas is not exercised anymore and many of those involved in hunting and fishing are not from the local area or not properly linked with the local communities. Illegal hunting is a big problem as well.

The CBM programme believes that they can use the general spot counts data on game animals to compare with their own monitoring. The CBM programme wants to make official documents out of their monitoring and provide these to regional authorities in order to influence management decisions. Local activists will use the CBM programme and its evidence to make advocacy towards authorities. With the CBM programme being linked to the Komi-Izhma organisation, they have the opportunity to send official requests based on the outcome of the community based monitoring to the inspection authorities and then these authorities will have to respond.

The CBM programme in Izhma, Komi can be a model for how local Arctic communities in Russia can organise the monitoring and seek to influence the management of the natural resources in the areas where they are living.

Opportunities for further data and experience exchange with CSPIN should be further utilised.

Status and progress of CBM activities

In the monitoring activities undertaken so far around five to six local villages have participated. Between twenty and thirty people have been involved and around ten to fifteen people have been involved in meetings at Izhma village. Those who participate in the central meetings have gotten their input from a number of participants in their local area.

The coordinators of the different local groups have worked with groups in their respective settlements and have monitored some of the resources from the long list of resources and resource uses. Exchanges of experiences have taken place among the groups.

The monitoring has been undertaken related to the following:

Brown bears. There continues to be a growing number of brown bears that causes threat to local people with growing number of attacks and encounters close to villages. There is a lack of opportunities for locals to actually control numbers of brown bears. Increasing number of brown bears infected. Monitoring is done and discussed. Trends in data still too early to establish. Monitoring is looking at numbers seen, encounters close to villages, and attacks.

Fishing grounds. Fishing grounds continues to be increasingly rented by outsiders, and therefore effectively privatized. This is a problem for locals. Especially this is problematic close to settlements because it impacts local fishing opportunities. Also in strategic places in Pechora river this is happening and is seen as problem. It impacts fish available to locals. The issue is being discussed and monitored when possible. The monitoring focuses on the number and size of fishing grounds rented by outsiders/privatized especially close to settlements along the Pechora river.

Pollution and water quality. There are pollution and disturbances from oil and other industry development, which is having a negative impact on hunting and fishing in the area. Also water quality is being impacted. Local communities are generally not being involved in any hearings or planning with regards to the oil development in the area. There are oil spills. Water quality in key water bodies is impacted by these developments and potentially by other types of pollution. Monitoring of water quality is difficult and especially difficult to know about impact. Monitoring as such not undertaken. Specific monitoring of oil pollution should be further stressed.

Salmon. Salmon-Semga *Salmo salar* is a key species for local fishing. There continues to be important changes taking place in how much catch is available locally and in the size of fishes caught. Changes are impacting local fishing opportunities. Reasons behind are likely to be overfishing in some areas and bad fishing practises. Monitoring of fishing and availability related to this species shall be further stressed. Monitoring focus on size of catch and sizes of the fish caught.

Arctic Grayling . Arctic Grayling *Thymallus thymallus* is also important as a local species for fishing. Again, the amount caught and the sizes of caught fish are changing. Reasons behind are likely to be overfishing in some areas and bad fishing practises. Monitoring of fishing and availability related to this species shall be further stressed. Monitoring focus on size of catch and sizes of the fish caught.

Forest game birds. Forest game birds are important in local hunting. This includes wood grouse, black grouse and grey grouse. There are changes in the population of these important game birds. Nesting grounds for forest game birds are impacted negatively from disturbances including disturbances from industrial development. Reasons for changes in populations probably include disturbances and bad hunting practises. Trying to follow the changes in populations continues to be important and is focused on wood grouse, black grouse, and grey grouse. The monitoring is about numbers seen, numbers shot and numbers of nesting grounds for forest game birds.

Moose. Moose is a key game animal that are undergoing changes in its abundance, and it is important to follow changes in its population and changes in numbers being shot. Monitoring has addressed the numbers seen and numbers shot.

Stray dogs. Stray dogs continue to be a problem in terms of attack on game animals. Monitoring is about numbers seen and numbers of attack on game animals. Monitoring has not so far addressed stray dogs.

Poaching and bad hunting practises. Poaching incidences in the area continues to be major problem. This is having negative impact on proper hunting and on availability of game. Bad hunting practises are increasingly employed in the area. This is both an issue with outsiders hunting practises as well as poorly trained/educated locals that are not applying proper hunting practises. Bad hunting practises have a negative impact on availability of game. And it is seen as central problem in the area. Monitoring focus on numbers, origin and distribution of the bad practises. Monitoring should be further stressed on poaching and bad hunting practises.

Berry picking. Key areas for berry picking are being destroyed and berries are getting more difficult to gather. Reasons include destruction of key berry picking areas and increased pressure from increased number of berry pickers. Monitoring of this has been limited. The monitoring should focus on key berry picking areas.

Traditional hunting grounds. Komi-Izhemtsy people have traditional hunting grounds used through generations. A number of these hunting grounds are changing and deteriorating. Monitoring is being done and focuses on how these hunting grounds are changing and what state they are in.

American mink. American mink (an imported species) continues to be an issue with significant increase in numbers and is a threat to local birds and mammals. Monitoring is focused on number of sightings.

Overall, there are important changes taking place, but it is too early to draw out specific conclusions in terms of trends and the monitoring activities are so far mainly based on general impressions on the status of the different resources and resource uses. Matrixes used for documentation and for communication of the results has been used to some extent but need further stressing.

List of the Workshop Participants, Izhma village, 11 September, 2017:

- Nikolai Rochev, Izhma village, Project regional coordinator, head of Komi-Izhma interregional public movement "Izvatas".
- Arkadiy Kanev, Izhma village
- Feodor Kanev, Lasta village
- Ivan Kanev, Kartael village
- Alexander Smetanin, Izhma and Moshyuga villages
- Ivan Chuprov, Izhma and Shchel'yayur villages
- Nikita Vronskiy (Project coordinator, Moscow)
- Alex Terentev, interpreter.
- Martin Enghoff, project manager, Copenhagen, Denmark

List of the Monitoring Group Coordinators

Group 1. South and South-West parts of Izhma region

Coordinator: Vasilij Kozhevin, Kartael village, local businessman.

Group 2. Central part of Izhma region

Coordinator: Feodor Kanev, Lasta village

Group 3. North-East part of Izhma region

Coordinator: Arkadiy Korolev, Izhma village.

Annex 5. CBM local reporting forms from CBM groups 2017-2019.

Yakutian matrixes

The various CBM groups in Yakutia has reported their findings using reporting matrices. Those that have been translated into English are presented below. They are:

Zhigansk village: IV quarter 2017, and I,II and IV quarter of 2018

Kystatyam village: IV quarter 2017 and III quarter 2018

Zhigansk school: IV quarter 2017 and I and II quarter 2018

(further reporting matrices are in the process)

ZHIGANSK (Sakha Republic - Jakutia)

Name of coordinator: Ms. Lidiya Atlasova							Year, quarter: 2017, 4th quarter						
Village/community name: Zhigansk village, Sakha Republic (Jakutia)							Tendency*				Comments re. number, size of animals, first/last sightings etc.	Possible meaning and explanation of tendency *	Ideas for action and recommendations on management
Resources/ Resource use	Month	Locality	Total number of trips	Number seen	Catch total	Method	No change	More	Fewer	Don't know			
Moose	October	Zhigansk surroundings	15	1	0				*		Only a few tracks were registered	Just do not come across to the observer	No comments
	November	Zhigansk surroundings	16	1	0				*				
	December	Zhigansk surroundings	14	0	0				*				
Wild reindeer	October	Zhigansk surroundings	15	0				*			Last year at the same time there were tracks of 15-20 animals, but now they are not here.	Did not pass through our territory?	We should keep monitoring the wild reindeer migration to our territory.
	November	Zhigansk surroundings	16	0				*					
	December	Zhigansk surroundings	14	0				*					
Brown bear	October	Zhigansk surroundings	15	1					*		Bears are often found in autumn, there are many tracks.	Migration due to forest fires. No one kills a bear, they tear out tents, eat food. They represent danger.	Allow bear hunting without license to community members and hunters.
	November	Zhigansk surroundings	16	0					*				
	December	Zhigansk surroundings	14	0					*				
Sable	October	Zhigansk surroundings	15	3	2				*		Quantity has decreased	Due to increasing of bears' number. Bears scare and eat fur-bearing animals.	
	November	Zhigansk surroundings	16	3	3				*				
	December	Zhigansk surroundings	14	0	0				*				
Arctic cisco (<i>Coregonus autumnalis</i>)	October	Lena river	-	-	-	fishnet					The quantity has decreased by 10 times compared with	We do not know why (the reason).	Research of ecology, water temperature, river
	November	Lena river	5	0	0	fishnet							

	December	Lena river	3	0	0	fishnet					the previous catch		bed is needed. At auctions, fishing areas are provided to commercial enterprises.
Siberian whitefish (<i>Coregonus sardinella</i>)	October	Lena river	6	0	0	fishnet	*				Decreased, this has never happened before.	State fishing institutions do not protect water resources. The state does not provide fishing grounds to indigenous peoples. It is needed not only need to take from nature, but also make observations and observe the environmental health.	Give back the right to the places of traditional fishing. Carry out cleaning of the river and reproduction of fish resources. The pursuit of rapid fishing and the number of catch leads to the disappearance of fish stock. Stop commercial fishing during a certain period.
	November	Lena river	35	90–150	90–150	fishnet	*						
	December	Lena river	12	90–150	90–150	fishnet	*						
Contributors: Nikolai Sivtsev, Valeriy L'vov, Egor Nikolaev, Nikolai Migalkin, Afanasiy Stepanov, Nikolai Vinokurov, Dmitriy Ivanov, Vladimir Innokentiev, Egor Romanov, Anatoliy Konstantinov, Viacheslav Sofonov – all are Zhigansk residents.											*Tendency is seen in relation to same period last year ** Do use more sheets if relevant		
Coordinators signature: Lidiya Atlasova													

ZHIGANSK (Sakha Republic - Yakutia)

Name of coordinator: Ms. Lidiya Atlasova							Year, quarter: 2018, 1st quarter						
Village/community name: Zhigansk village, Sakha Republic (Yakutia)							Tendency*				Comments re. number, size of animals, first/last sightings etc.	Possible meaning and explanation of tendency *	Ideas for action and recommendations on management
Resources/ Resource use	Month	Locality	Total number of trips	Number seen	Catch total	Method	No change	More	Fewer	Don't know			
Moose	January	Zhigansk surroundings	5	0	0				*		Only a few tracks were registered	Just do not come across to the observer	No comments
	February	Zhigansk surroundings	6	1	0				*				
	March	Zhigansk surroundings	6	0	0				*				
Wild reindeer	January	Zhigansk surroundings	10	20			*				Last year at the same time there were tracks of 15-20 animals, but now they are not here.	Did not pass through our territory?	We should keep monitoring the wild reindeer migration to our territory.
	February	Zhigansk surroundings	16	15			*						
	March	Zhigansk surroundings	10	19			*						

Name of coordinator: Lidiya Atlasova							Year, quarter: 2018, II							
Village/community name: Zhigansk village, Yakutia							Tendency*				Comments re. number, size of animals, first/last sightings etc.	Possible meaning and explanation of tendency *	Ideas for action and recommendations on management (possibly expand on separate paper)	
Resources/ Resource use	Month	Locality	Total number of trips	Number seen	Catch total	Method	No change	More	Fewer	Don't know				
Moose	April	Zhigansk's vicinity	5	2	0		*							Traditional hunting can not be considered as commercial one. For the indigenous peoples of Zhigansk District, the authorities envisage the harvest of only 30 reindeer. At the same time, in the neighboring districts, a license is issued for shooting 300 reindeer for personal consumption.
	May	Zhigansk's vicinity	3	1	0		*							
	June	Zhigansk's vicinity	5	1	0		*							
Wild reindeer	April	Zhigansk's vicinity	7	3	0		*							
	May	Zhigansk's vicinity	3	0	0		*							
	June	Zhigansk's vicinity	6	0	0		*							
**														
Contributors:											*Tendency is seen in relation to same period last year			
Coordinators signature:											** Do use more sheets if relevant			

Side 1

Zhigansk Village

Name of coordinator: Lidiya Atlasova							Year, quarter: 2018, 4 th quarter						
Village/community name: Zhigansk Village, Sakha (Yakutia) Republic							Tendency*				Comments re. number, size of animals, first/last sightings etc.	Possible meaning and explanation of tendency *	Ideas for action and recommendations on management
Resources/ Resource use	Month	Locality	Total number of trips	Number seen	Catch total	Method	No change	More	Fewer	Don't know			
Moose	10	Zhigansk village surroundings	9	1	0		*				Traces. Small amount of trps. No licenses were issued.	Far away from the village.	The Ecology Department has banned hunting for female moose.
	11	Zhigansk village surroundings	7	1	0		*						
	12	Zhigansk village surroundings	5	0	0		*						
Wild reindeer	10	Zhigansk village surroundings	6	0	0			*			The number is small, animals of normal size. Licenses for indigenous people were not issued.	Just arrived from the North	Experts discern where the reindeer came from by type, size, route.
	11	Zhigansk village surroundings	5	0	0			*					
	12	Zhigansk village surroundings	4	0	0				*				
Brown bear	10	Zhigansk village surroundings	0	0	0						Hibernation	Hibernation	Allowed to kill the bear, if there is danger.
	11	Zhigansk village surroundings	0	0	0								
	12	Zhigansk village surroundings	0	0	0								
Sable	10	Zhigansk village surroundings	8	3	2		*				The number stays the same	In the forest there are abandoned traps.	Poacher traps appeared in the forest
	11	Zhigansk village surroundings	7	3	3		*						
	12	Zhigansk village surroundings	5	0	0		*						

Arctic cisco	10	Lena River	-	-	-	Net		*			The number is more than last year, also the size.	Previously, they issued a quota for Arctic cisco, this year there is no, at the same time, for various reasons the fishermen were fined.	Inspectors do not want to recognize traditional fisheries.
	11	Lena River	5	0	0	Net			*				
	12	Lena River	3	0	0	Net			*				
Ryapushka	10	Lena River	6	0	0	Net			*		The number has slightly increased, but depending on the area.	The fishermen who fished in the northern part of the Lena River caught more fish.	According to the Law, traditional fishing is carried out without permission and without providing a plot. But Rosrybolovstvo requires participation in competitions.
	11	Lena River	35	90-150	90-150	Net		*					
	12	Lena River	12	90-150	90-150	Net			*				
<p>Contributors: Nikolai Sivtsev, Valeriy L'vov, Egor Nikolaev, Nikolai Migalkin, Afanasiy Stepanov, Nikolai Vinokurov, Dmitriy Ivanov, Vladimir Innokentiev, Egor Romanov, Anatoliy Konstantinov, Vyacheslav Sofronov, A.Shadrin – all are the residents of Zhigansk village.</p> <p>Coordinators signature: Lidiya Atlasova</p>											<p>*Tendency is seen in relation to same period last year ** Do use more sheets if relevant</p>		

KYSTATYAM (Sakha Republic - Yakutia)

Name of coordinator: Ms. Maria Grigorieva							Year, quarter: 2017, 4th quarter						
Village/community name: Kystatyam village, Sakha Republic (Jakutia)							Tendency*				Comments re. number, size of animals, first/last sightings etc.	Possible meaning and explanation of tendency *	Ideas for action and recommendations on management
Resources/ Resource use	Month	Locality	Total number of trips	Number seen	Catch total	Method	No change	More	Fewer	Don't know			
Domestic reindeer	September	Syataa							*		Number has decreased	Decreased due to wolf	A program to develop reindeer husbandry is needed
	October	Dyuodeinde											
	November	Sakhandya											
Sable	December	Menkere							*		Number is stable		Observing the hunting regulations
Arctic cisco (<i>Coregonus autumnalis</i>)	August	Mayaktaakh Island							*		Number has decreased	Climate conditions changing	Observing the fishing regulations
	September	Taimennyi Island							*				
Siberian whitefish (<i>Coregonus sardinella</i>)	November	Lena river							*		Number has decreased	Climate conditions changing	Observing the fishing regulations
Contributors: Coordinators signature: Maria Grigorieva											*Tendency is seen in relation to same period last year ** Do use more sheets if relevant		

Name of coordinator: Maria Grigorieva							Year, quarter: 2018, III quarter						
Village/community name: Kystatyam village, Zhigansk District							Tendency*				Comments re. number, size of animals, first/last sightings etc.	Possible meaning and explanation of tendency *	Ideas for action and recommendations on management (possibly expand on separate paper)
Resources/ Resource use	Month	Locality	Total number of trips	Number seen	Catch total	Method	No change	More	Fewer	Don't know			
Domestic reindeer	September	Syataa			30				*		The number has decreased	The number decreased due to the predation of wolves	Reindeer herding program is needed. Setting up a wolf extermination team is needed.
	October	Dyuodelinde			20				*				
	November	Sakhandya			60				*				
Omul <i>Coregonus autumnalis</i>	August	Mayaktaakh Island		28	10	Catch		*			The number increased	Because of climate change	Observing the rules of fishing
	September	Taimennyi Island		28	10	Catch		*					
Water quality	September	Kystatyam river		3		Water samples					Water samples sent to Yakutsk for analysis	Drinking water is taken from the Kystatyam river. The water from the Lena River is used for technical needs.	
	October	Meleen river		3		Water samples							
	November	Lena river		3		Water samples							
Moose		Kystatyam village vicinity		2	2	Shooting					The number of moose has increased	Observing the rules of hunting	
Contributors:											*Tendency is seen in relation to same period last year		
Coordinators signature:											** Do use more sheets if relevant		

ZHIGANSK_SCHOOL group (Sakha Republic - Yakutia)

Name of coordinator: Ms. Raisa Petrova							Year, quarter: 2017, 4th quarter						
Village/community name: Zhigansk village, Sakha Republic (Yakutia)							Tendency*				Comments re. number, size of animals, first/last sightings etc.	Possible meaning and explanation of tendency *	Ideas for action and recommendations on management
Resources/ Resource use	Month	Locality	Total number of trips	Number seen	Catch total	Method	No change	More	Fewer	Don't know			
Siberian whitefish (<i>Coregonus sardinella</i>)	October										This year the catch of the Siberian whitefish fell down sharply. Last season, the catch per person was about 450 kg, then this season only 40 kg. There is a change in the appearance of the fish (blackening) The dead specimens were caught occasionally.	Possibly, change of the bed of the Lena River, the way and the period of fish movement for spawning associated with changes in water temperature.	Detailed research by ichthyologists, space images of the Lena river bed, carrying out of deepening works on the Lena River bed.
	November	Lena river near Zhigansk village	10		Average 40 kg per person	fishnet			*				
	December												
Drinking water supply	October	Zhigansk village					*				The quality of drinking water at the village does not meet sanitary standards; some part of the population procures ice from the river, some use technical water.	There is no centralized purification facility in the administrative center of the district (Zhigansk), a system is only in the school and two multi-storey houses, but it is not allowed to drink water there.	It is necessary to build a treatment plant, install filters at least in newly constructed houses.
	November	Zhigansk village					*						
	December	Zhigansk village					*						
Rubbish dumps	October	Zhigansk village						*			Expansion of the dump's areas close	Absence of a technology for	It is necessary to build a treatment

	November	Zhigansk village						*			to the village, the lack of safe disposal technology.	separate collection of household waste, approaching bears and other carnivorous animals to the populated area, the possibility of spreading diseases.	plant, install filters at least in newly constructed houses.
	December	Zhigansk village						*					
Local products	October	Zhigansk village							*		Almost no local products in stores (fish, meat, milk, berries), if any, very high prices.	Underdevelopment of enterprises involved in the processing of local products, high production costs	We need mechanisms to support local producers.
	November	Zhigansk village							*				
	December	Zhigansk village							*				
Contributors: Grigoriy Lyashenko, Ivan Okoneshnikov, Andrei Ogurtsov, Maxim Starostin, Maxim Androsov, Nikita Petrov, Alina Vasilieva, Lev Ivanov. Coordinators signature: Raisa Petrova											*Tendency is seen in relation to same period last year ** Do use more sheets if relevant		

ZHIGANSK_SCHOOL group (Sakha Republic - Yakutia)

Name of coordinator: Ms. Raisa Petrova							Year, quarter: 2018, 1st quarter						
Village/community name: Zhigansk village, Sakha Republic (Yakutia)							Tendency*				Comments re. number, size of animals, first/last sightings etc.	Possible meaning and explanation of tendency *	Ideas for action and recommendations on management
Resources/ Resource use	Month	Locality	Total number of trips	Number seen	Catch total	Method	No change	More	Fewer	Don't know			
Zooplankton, zoobenthos	January	Strekalovka river	0	0	0					*	No catch of zoobenthos and plankton during those months.	Freezing and ice cover during the winter period.	Preparation for water assessment using bioindication method.
	February	Strekalovka river	0	0	0					*			
	March	Strekalovka river	0		0					*			
Inner parasite <i>Dipyllobothrium latum</i>	January	Siberian whitefish caught in Lena River		5		Observation		*			There is a presence of <i>Dipyllobothrium latum</i> larvae (plerocercoids) in fish muscles.	Fish is the main diet of Zhigansk residents. We eat raw, freshly frozen, poorly fried fish, which is the source of infection of a dangerous disease diphyllbothriasis.	It is necessary to provide free tests, especially for children
	February	Siberian whitefish caught in Lena River		2		Observation		*					
	March	Siberian whitefish caught in Lena River		0		Observation		*					
Ravines	January	Zhigansk village		1		Observation		*			Increasing the number of ravines around the village.	According to our observations, in recent years the number and size of ravines located on the territory of Zhigansk have been increasing as a result of erosion.	It is necessary to carry out constant monitoring and make work to prevent ravines from widening and expansion.
	February	Zhigansk village		1		Observation		*					
	March	Zhigansk village		1		Observation		*					

River spit	January	Lena River bank				Observation		*				There is an increase in the size of the river spit.	The river bed and floodplain of the Lena River near Zhigansk is being changed, there are no deepening works.	It is necessary to pay attention to this problem.			
	February	Lena River bank				Observation		*									
	March	Lena River bank				Observation		*									
Siberian whitefish (<i>Coregonus sardinella</i>)	January										Siberian whitefish fishing does not occur these months.	Siberian whitefish is a semi-anadromous species. During these winter months there is a massive movement into the coastal sea waters after the spawning period	To make continuous ichthyological research.				
	February																
	March	Lena River near Zhigansk village	0	0	0				*								
Drinking water supply	January	Zhigansk village			Ongoing	Observation	*				The quality of drinking water does not meet sanitary standards, some of the population procures ice, some use technical water. Very high prices for the delivery of purified water.	There is no centralized sewage treatment plant in the administrative center of the district (Zhigansk village).	There is a need to construct the water treatment facilities.				
	February	Zhigansk village			Ongoing	Observation	*										
	March	Zhigansk village			Ongoing	Observation	*										
Rubbish dumps	January	Zhigansk village	1			Observation		*			Expansion of the dump's areas, beginning of snow and waste melting.	The possibility of spreading diseases among the population increases due to the fact that sewage enters the river.	It is necessary to carry out constant monitoring of water quality on the Strekalovka River				
	February	Zhigansk village	1			Observation		*									
	March	Zhigansk village	1			Observation		*									

Local products	January	Zhigansk village			Ongoing	Observation		*			There is a slight increase in locally produced foods in stores (fish, wild reindeer meat).	Underdevelopment of enterprises involved in the processing of local products; high production costs.	There is a need for mechanisms that support local commodity producers.
	February	Zhigansk village			Ongoing	Observation		*					
	March	Zhigansk village			Ongoing	Observation		*					
Contributors: Lev Ivanov, Alina Vasilieva, Emil' Adyshov, Violetta Alekseeva, Marat Diakonov, Pavel Okoneshnikov – all are 7 grade students. Also: Grigoriy Lyashenko, Ivan Okoneshnikov, Andrei Ogurtsov, Maxim Starostin, Maxim Androsoy, Nikita Petrov, Rostislav Sivtsev. Coordinators signature: Raisa Petrova											*Tendency is seen in relation to same period last year ** Do use more sheets if relevant		

ZHIGANSK_SCHOOL group (Sakha Republic - Yakutia)

Name of coordinator: Ms. Raisa Petrova							Year, quarter: 2018, II quarter						
Village/community name: Zhigansk village, Sakha Republic (Yakutia)							Tendency*				Comments re. number, size of animals, first/last sightings etc.	Possible meaning and explanation of tendency *	Ideas for action and recommendations on management
Resources/ Resource use	Month	Locality	Total number of trips	Number seen	Catch total	Method	No change	More	Fewer	Don't know			
Zooplankton, zoobenthos	April	Strekalovka river	0	0	0					*	The water after the ice drift is still cold	Preliminary capture of zoobenthos showed no water insects in the river	
	May	Strekalovka river	0	0	0					*			
	June	Strekalovka river	2		0	Catch by hydrobiological net				*			
Inner parasite <i>Diphyllobothrium latum</i>	April	Siberian whitefish (<i>Coregonus sardinella</i>) caught in Lena River	0			Observation			*		The probability of infection by this parasite, the host of which is the	In these months, in the Lena River in the vicinity of Zhigansk, the Siberian whitefish	It is necessary to observe the infection with the
	May	Siberian whitefish	0			Observation			*				

		(<i>Coregonus sardinella</i>) caught in Lena River								Siberian whitefish, is minimal in these months.	is not caught (the spawning time is November)	parasite of other fish species and follow the rules of processing fish before eating.
	June	Siberian whitefish (<i>Coregonus sardinella</i>) caught in Lena River	0			Observation			*			
Ravines	April	Zhigansk village		1		Observation			*	Increasing the number of ravines around the village.	According to our observations, in recent years the number and size of ravines located on the territory of Zhigansk have been increasing as a result of erosion.	It is necessary to carry out constant monitoring and make work to prevent ravines from widening and expansion.
	May	Zhigansk village		1		Observation			*			
	June	Zhigansk village		3		Observation			*			
River spit	April	Lena River bank	0			Observation			*	The river spit is not identified	In these months there was an ice drift and a spring rise in the water level in the Lena River was observed.	It is necessary to pay attention to this problem.
	May	Lena River bank	0			Observation			*			
	June	Lena River bank	2			Observation			*			
Siberian whitefish (<i>Coregonus sardinella</i>)	April	Lena River near Zhigansk village	0	0	0				*	Siberian whitefish fishing does not occur these months.	Spawning period begins in November	Constant ichthyological studies should be carried out.
	May											
	June											
Drinking water supply	April	Zhigansk village			Ongoing	Observation			*	The quality of drinking water does not meet sanitary standards, there is a sharp shortage of clean drinking water for the population. Water delivery to consumers is made by water trucks and services for the delivery of purified water.	There is no centralized sewage treatment plant in the administrative center of the district (Zhigansk village).	There is a need to construct the water treatment facilities.
	May	Zhigansk village			Ongoing	Observation			*			
	June	Zhigansk village			Ongoing	Observation			*			

											Prices are very high: 1 barrel of water - 400 rubles.		
Rubbish dumps	April	Zhigansk village	1			Observation		*			Expansion of the dump's areas, beginning of snow and waste melting.	The possibility of spreading diseases among the population increases due to the fact that sewage enters the river. There is a danger of approaching bears to the village.	It is necessary to carry out constant monitoring of water quality on the Strekalovka River
	May	Zhigansk village	1			Observation		*					
	June	Zhigansk village	1			Observation		*					
Local products	April	Zhigansk village			Ongoing	Observation			*		Practically absence of locally produced products in stores (fish, wild deer meat, dairy products)	Underdevelopment of enterprises involved in the processing of local products; high production costs.	There is a need for mechanisms that support local commodity producers.
	May	Zhigansk village			Ongoing	Observation			*				
	June	Zhigansk village			Ongoing	Observation			*				
Contributors: Lev Ivanov, Alina Vasilieva, Emil' Adyshov, Violetta Alekseeva, Marat Diakonov, Pavel Okoneshnikov – all are 7 grade students. Also: Grigoriy Lyashenko, Ivan Okoneshnikov, Andrei Ogurtsov, Maxim Starostin, Maxim Androsov, Nikita Petrov, Rostislav Sivtsev. Coordinators signature: Raisa Petrova											*Tendency is seen in relation to same period last year ** Do use more sheets if relevant		