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RESEARCH REPORT

THE RAPID ASSESSMENT FOR COVID-19
QUARANTINE IMPACT ON TARGET GROUP OF
“SWITCH OFF AIR POLLUTION” PROJECT



*The document is for the use of project implementer
organizations*



Ulaanbaatar
2020

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APPRECIATION

The research of MIRIM Consultant LLC conducted rapid assessment for Covid-19 quarantine impact on target group of “Switch Off Air pollution” project funded by European Union and requested by “The project of consultancy and financial mediation services for building housing with energy saving in a sustainable way in the unregistered areas in Ulaanbaatar city” project in cooperation with GERES INGO, PIN INGO, GCMC, MNCA and BEEC.

During the research process various organizations and individuals shared their experiences and expertise in relation to the topic of the research, our special appreciation extends to “switch off air pollution” project team, Tamir.M-specialist at PIN INGO, Erdenechimeg.G- manager at MNCA, Ulambayar.T-project finance coordinator at GERES INGO, Munkhbayar.B-executive director at BEEC, Munkhnasan.D and Oyunbinderiya. E-representative from construction team and 150 target households taking part in the research process.

LIST OF ABBREVIATIONS

Ent	Entity
EntO	Entity organization
ADB	Asian Development Bank
MCUD	Ministry of Construction and Urban Development
BEEC	Building Energy Efficiency Center
PRC	People's Republic of China
GCMC	Ger Community mapping center
WHO	World Health Organization
MPP	Mongolian People's Party
MNCA	Mongolian National Construction Association
GoM	Government of Mongolia
MNCCI	National chamber of commerce and industry
SIC	Social insurance charges
NCPH	National center for public health
GO	Governor's office
HSES	Household socio-economic survey
INGO	International-NGO
NSO	National Statistics Office
SEC	State Emergency Commission
Parliament	State Great Khural
NGO	Non-Governmental Organization
SKHD	Songinokhaikhan district
SBD	Sukhbaatar District
PIN	People In Need
NSO	National Statistics Office
MUST	Mongolian University of Science and Technology

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ONE. THE RESEARCH METHOD AND METHODOLOGY

The main objective of this research is to identify the impact of Covid-19 quarantine and risks to the “switch off air pollution” project activities. Within the framework of the objective, the following outcomes are being proposed, which includes:

1. To identify the impact of the Covid-19 pandemic on the project target groups livelihood and economy;
2. To identify the pandemic’s quarantine impact on households economical non-official sector income
3. To identify pandemic quarantine impact on target households socio-economic and short-term investment plan;
4. To identify potential risks when target households receive housing insulation services;

The research includes the phases of (i) documents research and developing means (ii) the questionnaire for target households and interview for project implementer organizations representatives (iii) conducting analysis on research data and developing report. The data collection process used with both quantitative and qualitative research methods.

During the **documentation research phase**, the research team conducted analysis on following three documents. Includes:

- The researches on Covid-19 pandemic quarantine impact
- The information of the projects on air pollution and housing insulation reduction in the ger district areas.
- The policies and articles related to air pollution and housing insulation reduction on 2020 political parties’ platform during the election.

Citizens questionnaire; At the beginning of 2019, the research team conducted a baseline survey amongst 416 households. Among the households, the research team conducted an additional survey from the original target households by selecting at random 150 households to participate in a phone call questionnaire to follow-up with those whom had a plan to “renovate, added an extension of the current house, and insulate their home”.

Within the follow-up survey, 150 households had taken part of out of the original 416 households who participated in baseline survey. All of the survey respondents live in private housing from target khoroos from 15-18th Sukhbaatar district and 7,8,9,10,11,28,31 khoroos from Songinokhairkhan district.

Findings from the baseline survey:

Exactly 50% of the respondents earn less than 700,000 MNT each month. The average income of project target households are lower than that of the average income level at Ulaanbaatar city level. The average monthly income of Sukhbaatar district is slightly higher than that of Songinokhairkhan district.

The majority of the survey respondents are low-income households in accordance with conducting survey among the “Switch off Air Pollution” project target groups.

The questionnaire was pre-prepared and confirmed by the “Switch Off Air Pollution” project team (PIN, Geres, BEEC, MNCA). In the meantime, the pilot research was conducted prior to starting the data collection. (visit to Annex.1 to check initial research findings by citizens.)

TWO. THE RESEARCH FINDINGS

Situation analysis (Desk reviews)

On 26th January 2020, the Government of Mongolia made a resolution no.30 “ in order to “prevent from Covid-19 risk”, “ensuring preparedness” and declared “high preparedness alert” quarantine until 30th June 2020. As of 02nd July 2020, The State Emergency Commission made a decision to extend the quarantine until 15th July 2020.

Until today, more than 310 Covid-19 cases are registered. However, all of the cases are imported from overseas and some of the cases are recovered. During the “high preparedness alert”, the Government of Mongolia made a decision to cancel all schools, kindergartens, and training activities, closing its borders, limiting the number of vehicles between provinces, cancelling national level public holidays, closing down of services, shortening the working hours and prohibiting any public events. Currently, all of the cases are imported/quarantined and no community transfer is registered. It is a result of the effectiveness of the Government’s decision to limit the spread of the virus and reduce the risks.

On the other hand, the global economic crisis caused by the pandemic has had severe impacts on the Mongolian business sector as well as corporate entities. The socio-economic impact for the general public is increasing. According to the report developed by ADB, the quarantine actions created shocks at both the domestic and international market, particularly around supply and demand causing the economy to shrink rapidly. Moreover, due to the Covid-19 pandemic impacts, developing Asian market growth is expected to reduce to 2.2% from 5.5%. For the case of Mongolia, while the economy was expected to reduce at -1.9 % in 2020, the country’s economy is now expected to experience only growth of 2.8% in this year and 4.7% growth expectation in 2021. As mentioned in the ADB report, the inflation rate was increased to 7.3% in 2019 and it is expected to reduce to 6.4%¹.

According to the Q1 report developed by NSO, the number of registered unemployed people were reduced by 10.8% compared to the same period from the last year and 6.1% decrease from the previous month. On the other hand, according to the research conducted by Mongolian Chamber of Commerce and Industry amongst 1,504 business entities, 56% of respondents made changes in working hours and 33% of respondents dismissal from employment either for temporarily or completely. The Mongolian Chamber of Commerce and Industry found that 30% of business/respondents have a plan to dismiss nearly 8,000 positions². As mentioned in the Q1 report by NSO, 5,300 people received support from the Government’s financial unemployment insurance scheme in a total value of 12.9 billion MNT. The amount is higher by MNT 3.9 billion or 43% increase compared to the same period from the pervious year³.

¹ ADB, <https://www.adb.org/countries/mongolia/economy>

² Mongolian Chamber of Commerce and Industry, www.mongolchamber.mn

³ National Statistics Office www.nso.mn

According to the 2020 Q1 report developed by the Bank of Mongolia, the economy is shrinking, citizens and entities require to cancel, pause, freeze or are proposing changes to the contract of their respective loan or rent payments⁴.

As mentioned in the data by NSO in the Q1 Industrial Sector Report, the Mongolian economy only sold industry sector products at roughly 3 trillion MNT which is a decline by 35% compared to the same period from the past year. Due to the Covid-19 quarantine, people tend to reserve food and household items. As a result, retail sales is increased by 1.7% and wholesale sales income is increased by 6.2%.

The transportation industry is one of the most severely affected sectors by Covid-19 quarantine. The entire transportation sector's total income has decreased by 25% from the previous year and 37% in the past quarter alone. At the national level, 10.2 million tons of load was transported, a decline of 33.4% compared to the same period from the pervious year.

On the other hand, the railway transportation sector has witnessed an increase in income has because of the increase of transportation of the mining sector. The tourism sector is the most affected sector because of the actions taken by Government, closing down border and shutting down flights.

The research findings by "Sant Maral" foundation in May 2020, with the participation of 1,200 people from across Mongolia, found that 48.8% of respondents answered that the Covid-19 pandemic affected employment strongly, while 34.7% of respondents answered that they were affected somewhat affected. For the households that were identified as low-income, they responded that the Covid-19 pandemic very strongly affected them. 42.8% of the respondents answered that the Covid-19 pandemic affected the household financial situation very strongly, with 36.7% answered it affected in someway. **The low income households** answered that the quarantine affected them very strongly, which is 14% higher than that of average income households and 21.3% higher than above average income households. In short, the finance and employment situation of the low-income households has indeed worsened. Among the research respondents, 20.3% of them are lost their jobs. The gender of people who lost their jobs are equally same. The research also found that low income households (particularly disabled and single-headed house) had a higher ratio of job loss compared with other groups from higher economic status⁵.

In April 2020, the "Open Society Forum" conducted research on the Covid -19 impact on disabled citizens. Within this research, the number of household members who stay at home has increased, however, the household's income has remained surprisingly nominal. Nevertheless, the household income has become increasingly insufficient due to the rising price of food and household items. The most challenging issue during the Covid-19 pandemic is providing equal educational opportunities, with an emphasis on disabled children⁶.

⁴ The bank of Mongolia, <https://www.mongolbank.mn/>

⁵ Sant Maral Foundation, https://830a862d-3fe6-40e6-b731-5a65590fd0cf.filesusr.com/ugd/915e91_93af0bbe81514b22a542fa4f42a89ea7.pdf

⁶ Open Society forum https://www.forum.mn/index.php?sel=project&menu_id=561&f=one&obj_id=5791

Results of the target group survey

66 % of the respondents are residents of Songinokhairkhan district and 34% are residents of Sukhbaatar district. By age group, 16.7% are under 30, 24% are 31-40 years old, 23.3% are 41-50 years, 20.7% are 51-60, 15.3%-61 and older. In terms of the gender, 53.3% are female and 46.7% are male.

Figure 1. By age group, %

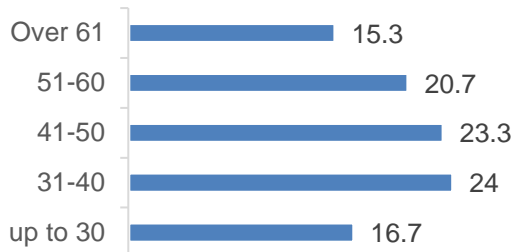
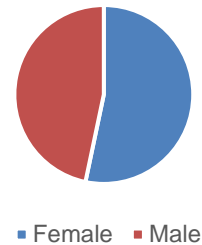


Figure 2. By sex, %



Regarding to the roles in the family, 59.3% are the heads of the household, 28.7% are the spouse of head of the household, 9.3% are children, 0.7% are grandchildren, 1.3% are parents, 0.7% are siblings. In terms of the number of household members, 18% has 1-2 members, 59.9% has 3-5 members, 22% has more than 6 members.

Figure 3. Members of the surveyed household, %

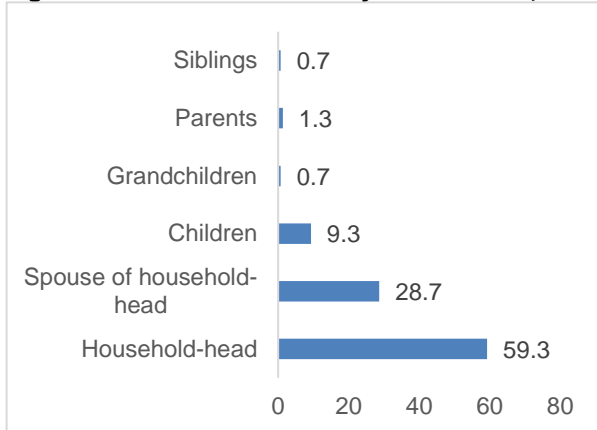
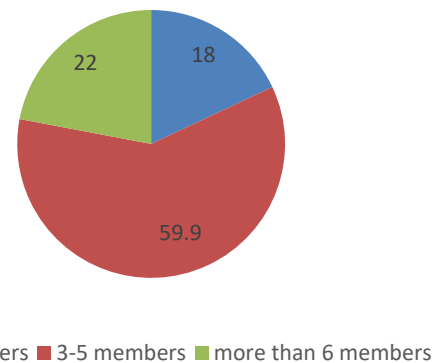


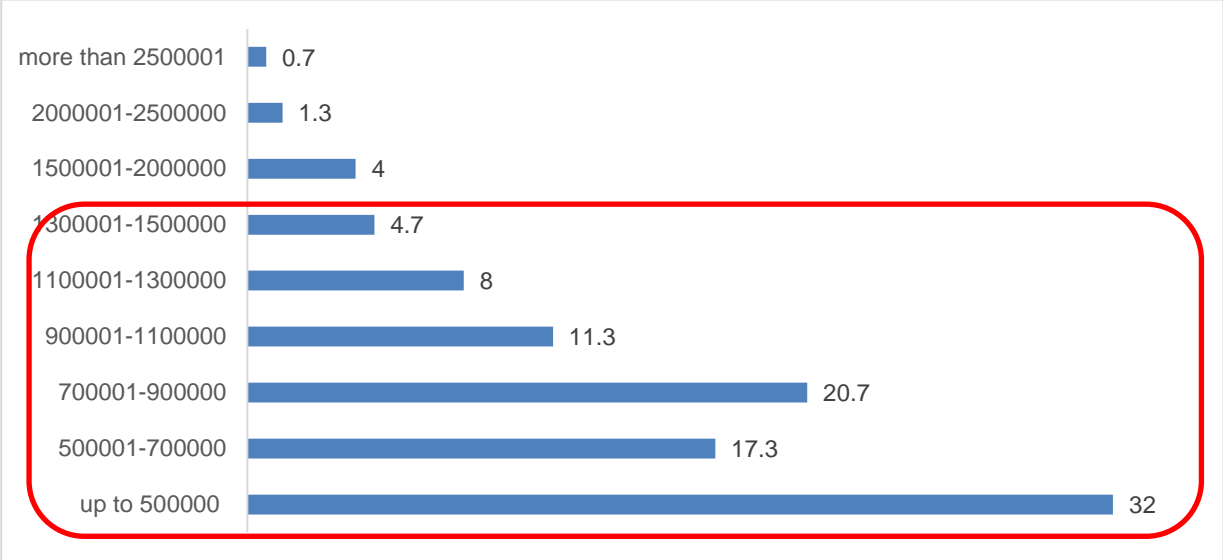
Figure 4. Number of households, %



Regarding to the types of household, 56.7% are traditional nuclear households (composing of the wife, husband and children) and 19.3% are multi-generational households (composing of the wife, husband, children, grandparents, relatives), 14.7% are female-headed households (composing of mother and children), 4.7% are male-headed household (composing of father and children) and 4.7% are single households.

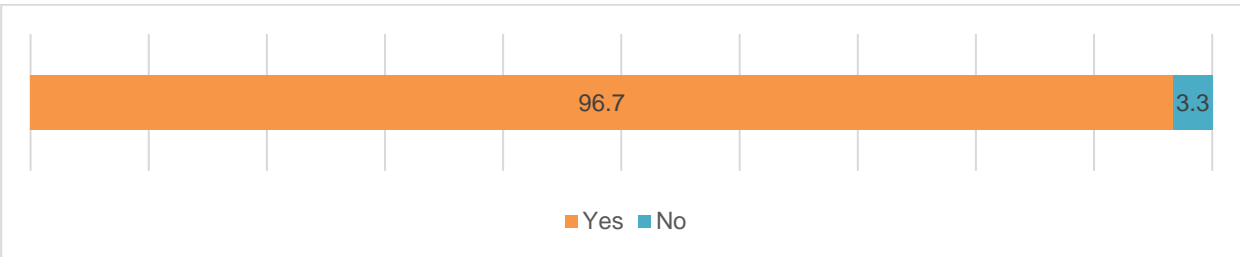
According to the 2019 data from NSO, the annual household income level is MNT 1,381,000. On the other hand, the average income level at Ulaanbaatar city level is 1,583,412 MNT. Moreover, 94% of survey respondents are living below the national average level of income.

Figure 5. Household income level, by 2019, %



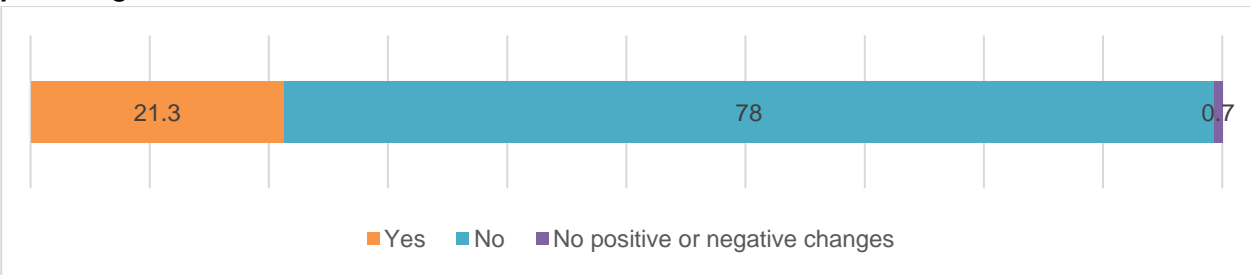
Amongst the 150 household respondents, 145 households answered (96.7%) have a knowledge of symptoms and prevention measures of Covid-19 and 3.3% answered they have no knowledge about it. The research data suggests that it has no difference by gender and age group on the question of whether having knowledge of prevention measures and symptoms of Covid-19.

Figure 6. Do you know prevention measures and symptoms of Covid-19? By percentage.



The behavior of children correlates with Covid-19 quarantine. Specifically, 21.3% of respondents answered that their children’s behavior has been changed and 78% answered the children’s behavior hasn’t been changed. The analysis between the change in household income and children’s behavior result shows the correlation. More specifically, among the respondents who answered their children’s behavior changed, 37.5% answered their income level had no change. Meanwhile, 62.5% answered the household income has changed. Due to closing down of schools and kindergartens and activation of online classes, children got bored, frustrated and asking for random items.

Figure 7. Did your children’s behavior has been changed due to the Covid-19 quarantine. By percentage

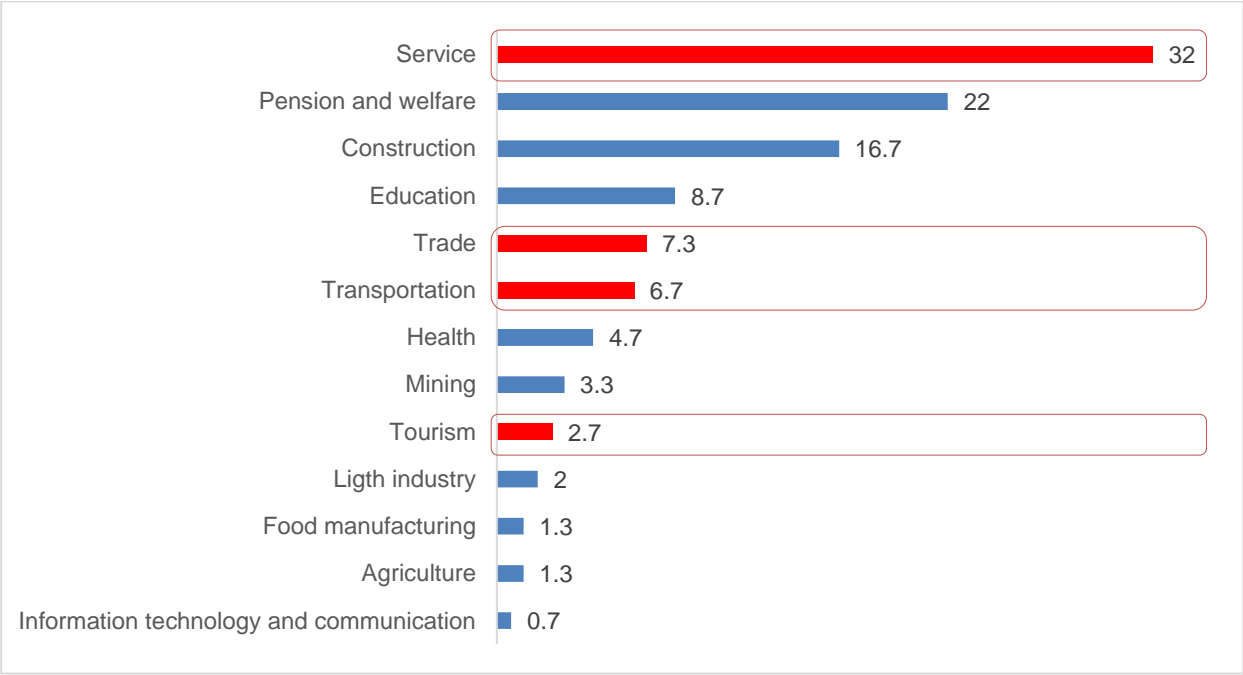


To the question of whether the access to health services has been become limited due to the Covid-19 quarantine for the household member with chronic illnesses, 6.7% of respondents answered yes, or that the access has become limited. 93% answered no, or that the access has not been changed. The research team identified the rationale behind change to limited access to health services, including:

- Refusal to provide health care by a public hospital to a disabled person on disability welfare resulted in getting health care services from private hospital – **1 case**
- Service inaccessibility due to insufficient number of hospital beds, long list of patient registration and bureaucracy – **1 case**
- Treatment and surgery postponed of a child admitted in inpatient ward – **1 case**
- Inconvenience of accessing healthcare (wearing masks, getting temperatures taken, not queuing, prohibiting mass gathering) - **7 cases**. During research process, a total of **10 cases** experienced limitation to access to health care.

According to the research findings, the primary income earners of households are employed by service sector 32%, commerce sector 7.3%, transportation sector 6.7%, tourism sector 2.7% which are the most severely impacted sectors by Covid-19 quarantine.

Figure 8. Employment sectors of primary income earners in households, %



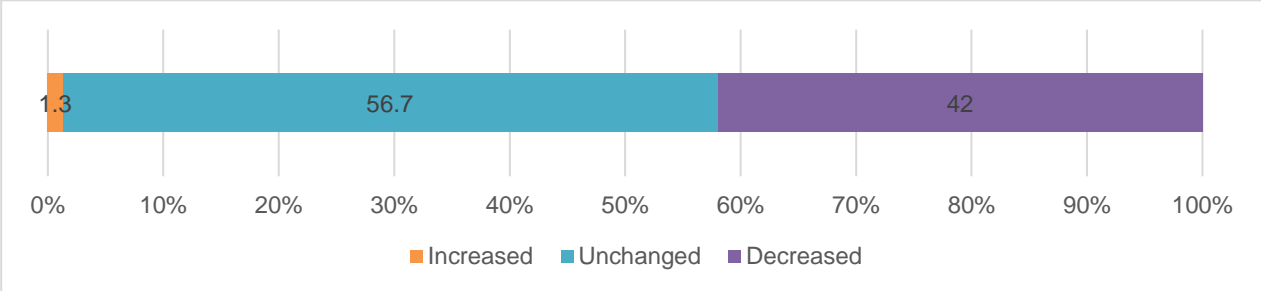
The research data about the “change in employment and business of primary income earners in households due to Covid-19 quarantine” revealed that 52% did not experience change, while 48% reported some level of changes. In terms of the 48% of respondents who experienced change in employment, showed the following transitions were made:

- Decreased purchases 22.2%
- Decreased salary but unchanged working hours 18.1%
- Decreased salary and decreased working hours -15.3%
- Employment closure (bars, schools, kindergartens) and leave without pay -8.4%
- Dismissal from employment - 5.6%
- Cannot find employment - 3.3%

Due to Covid -19 quarantine, the research found that 42% of households reported a decrease in their income, while 1.3% had an increase and 56.7% had no change in their income, respectively.

For households that **“reported a decrease in their income”**, the study found that 46% of respondents are employed by the service sector, 11.1% are employed by the construction sector, 11.1% are employed by the trade sector and 7.9% are employed by the transportation sector.

Figure 9. Household income sufficiency change due to COVID-19 situations, %

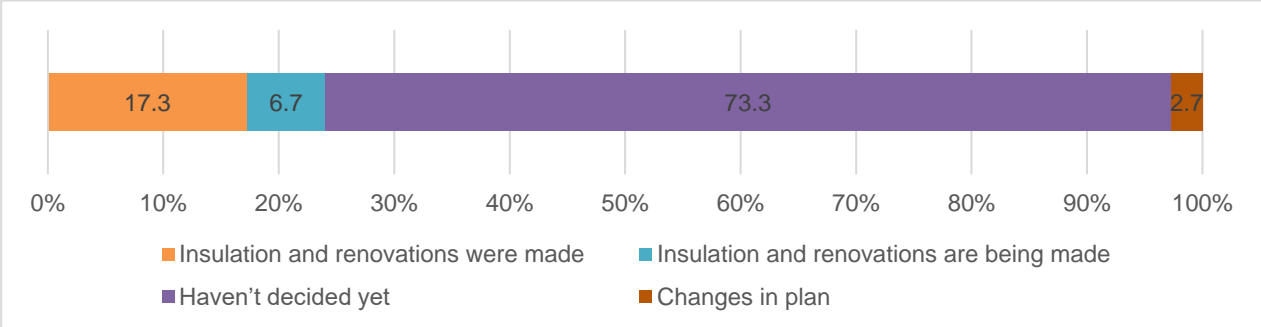


For households that **“reported a decrease in their income”**, they have taken the following actions due to the worsening of living conditions as a result of the Covid -19 quarantine:

- Reducing household expenses and savings - 65.3%
- Selling personal items -2%
- Loans from friends/family/shops -9.3%
- Loans from pawnshops -10.7%
- Loans from the bank -12.7%.

In terms of the households, a baseline survey was conducted among 416 households at the start of 2019. Data was collected from 150 households who participated in this survey who planned to “renovate, expand, insulate” their current housing and were asked if their plans had changed due to the COVID-19 quarantine. Of the respondents, 17.3% answered that they completed the insulation and/or renovation process, 6.7% answered that they are in the process of renovation and insulation and 73.3% answered that they haven’t decided yet and 2.7% answered that they made changes to their plan.

Figure 10. Changes in “renovate, expand, insulate” plan, %



During the research process, 2.7% of respondents or 4 citizens made changes to their plan. Among the 4 respondents, 1 changed plan to renovate partially while 3 postponed their investment plan.

Prior to the pandemic, the respondents to this survey had different plans for the future of their living condition: 32% of the respondents they were interested purchasing an apartment, 43.3%

had plans to “renovate, expand, and/or insulate” their current housing, **24.7%** had no clear plans. However, the Covid -19 pandemic changed the plans of households.

There are 3 key factors expected from general public.

1. The first factor is the articles and policies of the political party platforms.

Articles and Policies relevant to “Switch Off Air Pollution” project activities mentioned in the section on housing and ger district as a part of the platform of Mongolian People’s Party who won the 2020 Parliamentary election .

1.2.4 Systematic actions will be taken to lower, exempt target group of housing prepayment. 1.2.5. Mortgage rate with 4-6 % interest rate will be given to mid and low-income citizens who are purchasing housing for the first time.

1.2.6. Actions will be taken to support 150,000 households in relation to acquiring housing based on the partnership between governmental and private organisations in cooperation with National Apartment integrated corporation, integrated savings fund and National Wealth fund. Including: 80 thousand household housing provided by National Housing Provision Project, 50 thousand household housing provided by “Low income housing” program implementation and 20 thousand household housing provided by “Rental housing” program implementation.

5.6.1 Actions will be taken to increase the supply of housing with different engineering solutions (in line with income, owned housing, rented housing, green housing) and to provide 100,000 households with housing and to supply more than 70% of the city’s citizens with housing.

5.6.2. Actions will be taken to connect the central, middle, peripheral and summer cottage areas of the ger district in Ulaanbaatar to centralised, partial and independent engineering infrastructure.

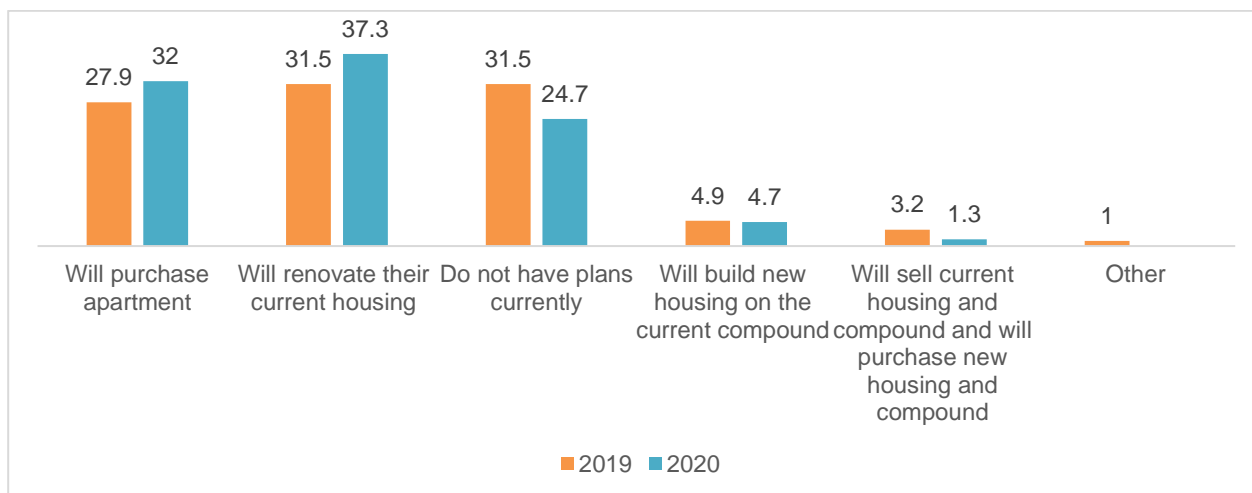
Mongolian People’s Party election platform 2020

2. The second reason is the decreased income and economic uncertainty of target households due to the Covid -19 quarantine.
3. The third reason is that there are 2-3 projects being implemented in Ulaanbaatar aiming to reduce heat loss of housing in the ger district. These projects offer subsidies such as reimbursing 30% of the cost if citizens decreased their housing heat loss, granting 20% of the cost if they build new passive houses (Clean Air project⁷, GIZ project⁸). Therefore, citizens tend to choose these projects.

These aforementioned factors have resulted in the respondents future plans for their homes. Mutual interest of the research respondent households is that 68% plan to remain in “houses” in the current ger district. For instance, according to research findings as of 2020, 32% of the respondents are interested in moving to an apartment, 37.3% are interested in renovating their current housing, 4.7% interested in building a new house in their current compound/“hasha”, and 27.7% have no clear plans. The number of citizens who are interested in moving to an apartment rose by 4.1% compared to the data from 2019. As a result of comparative analysis of the population group with interest to move into an apartment and their income level, there are not many potential candidates. If we add the economic crisis impact, the probability of these households purchasing a new apartment is increasingly lower.

⁷ WB, <https://projects.worldbank.org/en/projects-operations/project-detail/P167421>

⁸ GIZ <https://www.giz.de/en/worldwide/17721.html> Figure 11. Future plans in relation to housing %



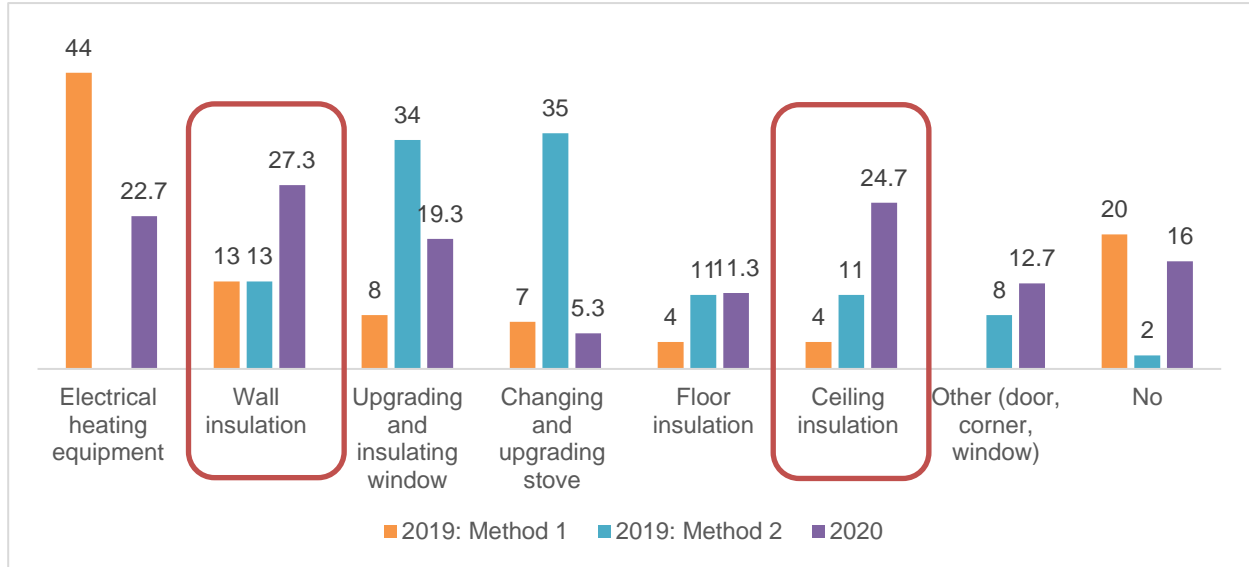
Among the households who are planning to purchase apartment, 81.8% are planning to purchase it in the short-term between 2020-2023. The majority of the households have things to change in their housing within the upcoming 3 years.

Table 1. Households' plan to upgrade and change their housing (yearly) %

No	Plan	2020	2021	2022	2023	2024	2025	2026	2028	Total
1	Will purchase an apartment	14.6%	14.6%	20.8%	31.2%	6.2%	10.4%		2.1%	100%
2	Will sell current house and hashaa and will purchase new house and hashaa		50.0%					50.0%		100%
3	Will build new house on the current hashaa	28.6%	14.3%	57.1%						100%
4	Will renovate their current house	35.7%	33.9%	12.5%	16.1%	1.8%				100%
Total		25.4%	24.6%	19.3%	21.1%	3.5%	4.4%	0.9%	0.9%	

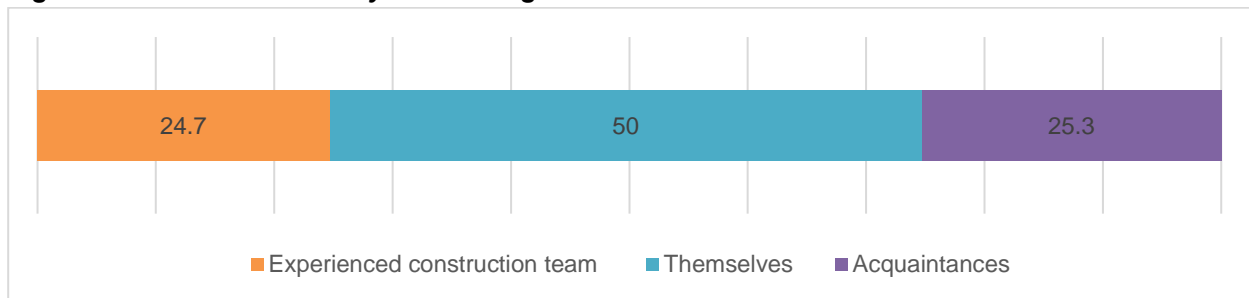
According to research findings from 2019, the result from the quantitative survey to determine different solutions to reduce heat loss showed that the most common solution was to install electrical heating equipment to decrease household heat loss. The second most common solution was insulation especially wall, ceiling and window insulation. However according to the research findings from 2020, 27.3% are interested in increasing the wall insulation, 24.7% are interested in increasing ceiling insulation, and 22.7% are interested in installing electrical heating equipment. Compared to the data from 2019, the choices of the citizen's solution to reduce heat loss show a change in the understanding about insulation amongst the general public. For instance: In 2019, there were limited options of wall and ceiling insulation. Comparatively, in 2020, the number of available solutions increased by over 10% which shows that the understanding about the heating has been disseminated to target groups and positive results are being made.

Figure 12. Most common methods to reduce housing heat loss, %



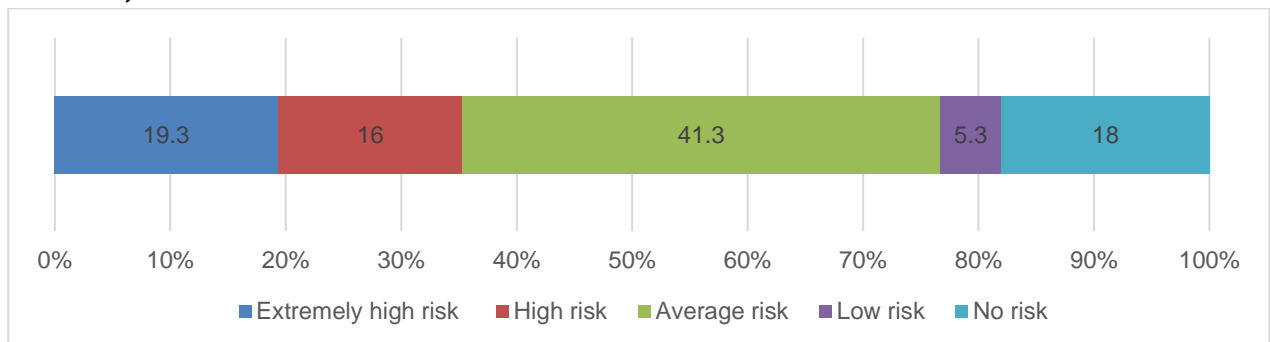
Amongst the citizens who plan “renovate, extend and insulate” their housing, 24.7% are employing an experienced construction team to conduct it, 50% are planning to do it themselves, and 25.3% are employing acquaintances.

Figure 13. Who will conduct your housing renovation and insulation? %



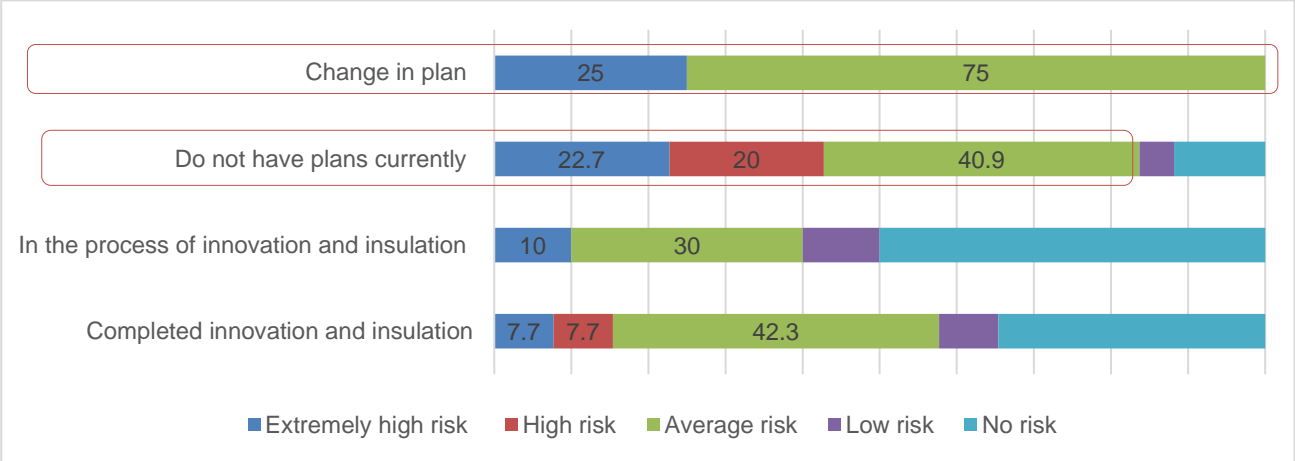
- Of the 150 HH respondents, if the Covid -19 quarantine is extended, they reported that there is an extremely or high risk of changing their plans to “renovate, extend or insulate”. Respondents: extremely high for 19.3%, high for 16%, average for 41.3%, low for 5.3%, has no risk for 18%.

Figure 14. Risk of change in plans to renovate and insulate if the COVID-19 quarantine is extended, %



Of the citizens who had a plan to “renovate, extend or insulate” their housing, they were asked if Covid -19 quarantine extension would risk the implementation of their plan. Out of the 73.3% who do not currently have plans, the majority (86%) are at average or above average risk.

Figure 15. Comparative assessment of change in plan to “renovate, extend or insulate” and relative risk in relation to Covid -19, %



THREE. CONCLUSION, RECOMMENDATIONS

Conclusion:

- The assessment of potential change in accessibility of **household income** during the quarantines of Covid -19 pandemic found that **42% of respondents experienced a decline in their income**.
- The highly impacted sectors in the market due to the Covid -19 are **service** sector 32%, **commerce** sector 7.3%, **transportation** sector 6.7%, and tourism sector 2.7%. The households whose incomes has declined work in the following sectors: **service sector 46%, construction sector 11.1%**, commerce 11.1% and transportation sector 7.9%. **The majority of the target group work in the informal sector.**
- **According future planning, 32%** of the research respondents answered about interested in moving to apartment, 37.3% interested to renovate their current housing, 4.7% interested to building new housing in the current compound and 27.7% has no clear plans. The citizens who are interested to moving in to apartment rose by 4.1% compared to the data from 2019. As a result of comparative analysis of income level and population group with interest to move into apartment, there are not many potential candidates. If we add the economic crisis impact, the number of households who can purchase new apartment is **very low**
- Among the citizens who are interested in “renovate, extension and improve insulation” have **three determiners**. (i) Uncertainty of economic and household income due to the Covid -19 pandemic (ii) the promises during the 2020 election (iii) similar projects offering subsidies implementing by developing organizations.
- Among the citizens who are interested in “renovate, extension and improve insulation”, **24.7%** are made experienced construction team to conduct it. **62.1%** are ranked the impact of Covid -19 pandemic is expected to be **middle and above middle level**.
- The behavior of children correlates with changes in household income. Specifically, 21.3% of respondents answered that their children’s behavior has been changed. Behavioral changes such as frustration, boredom, and demanding certain things are manifested in the absence of schooling, e-learning, and limited outdoor play. Among the households, **62.5% of the household income** has changed.
- Among the households who are planning to purchase apartment, **81.8%** are planning to purchase in shorter term between **2020-2023**. The majority of the remaining households have a wish to change their housing within the upcoming 3 years.
- According to the research findings from 2020, 27.3% are interested in increasing the wall insulation, 24.7% are improving ceiling insulation, and 22.7 are interested in electrical heating equipment. Compared to the data from 2019, the understanding about the thermal insulation among the general public has been increased. For instance: In 2019, the research findings were improving insulation of wall and ceiling. Comparatively, in 2020 the each of the two versions **increased by 10%**. The understanding about the insulation has been disseminated to target groups and positive results are made.
- When we analyzed housing “renovate, extend and improve insulation” plan, 17.3% are completed insulation and renovation, 6.7% are in the process of renovation and **73.3%** are not decided and 2.7% are made changes into the plan. The future customers target group of the project are the 73.3% of people who answered “not decided”. Among these population, **83.6%** are ranked the impact of Covid-19 pandemic quarantine is at **middle and above middle level**. Longer the quarantine continues, fewer the project future customers.
- Among the citizens whose **income has changed** due to the Covid -19 pandemic, housing “renovate, extend and improve insulation” plan is at high risk 23.6%, risky 18.1%, average risk 44.4%, low-level risk 4.2% and not risky 9.7%.
- Among the citizens who had **no change in the income level**, housing “renovate, extend and improve insulation” plan risk of change is rated high risk by 15.4%, risky 14.1%,

average risk 38.5%, low-level risk 6.4% and not risky 25.6%. Regardless of changes in the income, housing “renovate, extend and improve” plan is likely to be changed. Due to the current situation, the households need to shrink the range of the planned activities, postpone activities except the prioritized activities, and start investing in savings in order to reduce the potential risk, reduce the daily expenditures and increase the income source. In other words, it needs to be listed at the last item of the housing “renovate, extend and improve insulation”.

- According to our analysis of risk of changing “renovate, extend and improve insulation” shows that it has no difference among the male and female population.

Recommendations:

- Of the survey respondents, **42%** answered their income has been declined.
- **24.7%** of the population group with interest to implement the “renovate, extend and improve insulation” prefers to be conducted by a professional construction team.
- **37.3%** of the respondents are willing to get the service. The rest (62.7%) are planning to move to an apartment or change their housing areas.
- **73.3% of the respondents (37.3%), who have interest in getting the service, are not quite sure about getting the service in the near future because of the decline in their income as well as uncertainty caused by COVID-19.**
- **83.6%** of the all respondents’ decision could change depending on the COVID-19 situations. In other words, 16.4% of the respondents will not change their intentions in regard to their housing maintenance and changes.
 - In order to successfully complete the project, it is crucial to have a subsidy support, especially for 37.3%, who are willing to get the service.
- In addition, the financial capacity of the project targeted households was generally weak, with the impact of the Covid 19 pandemic making it increasingly more difficult to implement the project based only on the market mechanism of supply and demand. Therefore, it is recommended that the project team find other solutions. For example, it is necessary to take measures to lobby the relevant organizations to find additional subsidy funding, make energy saving solutions more affordable and profitable, and expand access to the green loan criteria.
- If the Covid-19 continue, it is appropriate to focus on educating the target group and empowering the brigades.