Report 2018/17

Implementing incentives for climate resilient housing among the urban poor in Vietnam – Monitoring report 2

For the Nordic Development Fund

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Our employees have high academic credentials and broad experience within consulting. When needed we utilise an extensive network of companies and resource persons nationally and internationally. The company is fully employee-owned.

Preface

The project “Implementing incentives for climate resilient housing among the urban poor in Vietnam” is funded by the Nordic Development Fund and implemented by Vista Analysis in cooperation with ISET Vietnam, Hue College of Economics at Hue University, and Women’s Union of Da Nang, Vietnam. The project started in late April 2016 and is scheduled to run to the late fall of 2018.

This is a monitoring report covering the fourth reporting period September 2017 – May 2018, in which according to the work plan at least 30 homes financed by the project should be built in Da Nang.

May 18, 2018

Haakon Vennemo
Project Manager
Vista Analysis

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1 Introduction

This report presents activities that have been carried out during the fourth reporting period of the project "Implementing incentives for climate resilient housing among the urban poor in Vietnam". In the first reporting period of the project, we carried out detailed research on the housing market and poor households in Da Nang, with the purpose of identifying the main barriers that prevent households from investing in climate resilient housing. The results are shown in the Inception report (Vista Analysis, 2016 a). In the second reporting period, three different incentive mechanisms, consisting of combinations of information, technical assistance and financial incentives, were designed. In the second reporting period we also designed a plan for rigorously assessing the impact of two of the incentive packages, by allocating incentives to households through a randomized controlled trial. A large baseline survey of 306 near-poor households in Da Nang was designed and carried out. The incentive mechanisms, the plan for monitoring and evaluation, and the questionnaire for the survey are shown in the Incentive mechanisms report (Vista Analysis, 2016 b).

In the third reporting period, the plans described in the two previous reports were implemented. Selected households were offered free professional technical assistance to retrofit or rebuild their homes to become storm resistant. They were offered either a microloan through the Women's Union of Da Nang's revolving fund, a grant, or a combination of the two, to co-finance their building costs. The grant was reserved for poor households, i.e. outside the group of 306 near-poor households originally surveyed. The implementation of the project was led by the Women's Union of Da Nang at the city level, and supported by Women's Union representatives at the district- and ward level. In addition to the communication between the Women's Union representatives and each of the households that take part in the project, a number of information events were organized by the Women's Union to educate local builders, to inform district- and ward leaders, and to ensure local support (Vista Analysis, 2017).

In this fourth reporting period we describe project activities in the period September 2017 through May 15, 2018. In this period 33 more households built and retrofitted their new homes. We conducted a follow-up survey of the 306 near-poor households that participated in the baseline survey, as well as interviews and focus group discussions of poor households that have received a grant. The two activities were monitored in two workshops. Finally, we organized a major outreach conference in Da Nang, with more than 300 delegates.

The report starts by detailing progress in constructing new homes (chapter 2). It then documents the monitoring of evaluation activities (chapter 3) and the implementation review&monitoring workshops (chapter 4). Chapter 5 reports from the outreach conference. Our plans for the final milestone of the project are described in chapter 6. Annexes detail the program of the outreach conference in January, and participating households.

2 Progress in construction of homes

In this section we use the following terms:

- P1: Near-poor households offered a loan
- P2: Near-poor households offered a loan and grant
- P3: Poor households offered a grant
- M3: Milestone 3, corresponding to the third reporting period (Jan to Sep 2017)
- M4: Milestone 4, corresponding to the fourth reporting period, this period (Oct 2017 to Apr 2018).

The term construction covers construction of new houses and construction in the form of retrofit.

2.1 Progress in housing construction

The main activity to monitor I M4 has been housing construction. Since the monitoring report of the third reporting period (Vista Analysis, 2017) some households in P1 and P2 have withdrawn. Eight new households have been added to P3[1]. Table 2.1 tracks the changes in P1, P2 and P3 participation over time.

Table 2.1 Participation in P1, P2, P3 over time

Construction started M3 according to Vista Analysis (2017)	Change compared to Vista Analysis (2017)	Construc-tion started Oct-Mar	Total
20	1		21
47		2	49
35	-1	31	65
102		33	135

As can be seen from Table 2.1, 33 households initiated construction in M4. All in all, 135 households have initiated construction, 35 more households than the project originally aimed for.

Details of participating households are given in Annex A. It should be noted that out of the seven households in P1 that in Vista Analysis (2017, table 4.2) were listed as "construction planned for M4", none have initiated construction. For various reasons these have effectively withdrawn. On the other hand, one household was erroneously listed as withdrawn in Vista Analysis (2017), yielding a total of 21 households of P1 performing construction.

Vista Analysis (2017, table 4.2) lists nine households of P2 as "construction planned for M4". For various reasons eight of these effectively withdrew, while two went on to construct. In total, 49 households of P2 have performed construction.

Regarding P3 Vista Analysis (2017) erroneously listed one household too many as participating. The correct total at that point should have been 34. Vista Analysis (2017) listed 26 households as "construction

[1] The addition of eight households was communicated to the NDF in a letter of December 2017.

planned for M4". In December 2018 eight more households were added, for a total of 34 awaiting construction. Three of these have withdrawn, yielding a total of 65 households (34+26+8-3) of P3 performing construction.

Five households withdrew after receiving technical support.

2.2 Reasons why households have withdrawn

Details of households initially drafted, that have later withdrawn, are given in Annex C. Households give various reasons for withdrawing. The most typical are illness in the family, lack of funds, unclear land and property rights, see Table 2.2.

Table 2.2 Reasons for households withdrawing from the program

Reason for withdrawing	Package 1	Package 2	Package 3	Total
Sickness/death in family	4	6	4	14
Lack funds for renovation	2	4	2	8
Decided not to renovate	3	2	0	5
Located in government planning zone	3	4	1	8
Renovates without loan	2	0	1	4
Undecided on time for construction	3	2	0	5
Others	5	4	2	11
Total	**22**	**22**	**10**	**54**

2.3 Finished construction

As of April 23, 2018 all 21 households in P1 had finished construction. In P2 47 households had finished construction and 2 were still under construction. In P3 61 households had finished construction and 4 were still under construction. Please see Table 2.3.

Table 2.3 Construction finished and on-going

Package	Finished construction	Still under construction
P1	21	-
P2	47	2
P3	61	4

2.4 New house versus retrofit

Among P1 households three have chosen to build a new house, while 18 have retrofitted.

Among P2 households 14 have chosen to build a new house, while 35 have retrofitted.

Among P3 households 25 have chosen to build a new house, while 40 have retrofitted. Please see Table 2.4.

Table 2.4 Participants choosing retrofit versus new house

		M3	M4	Total
P1	Retrofit	18	-	18
	New house	3	-	3
P2	Retrofit	34	1	35
	New House	13	1	14
P3	Retrofit	22	18	40
	New house	12	13	25

The photos below show construction in progress in some of the participating households.

Figure 2.1 New built and retrofitted homes. Six P3 participants

In Vinh Trung Ward, Thanh Khe District *(Photos taken on 3 Apr 2018, afternoon)*

Household 1

Nguyen Thi Bach Tuyet

Household 2

Nguyen Thi Hoi

Household 3

Huynh Thi Lieu

In Hoa Minh Ward, Lien Chieu District *(Photos taken on 4 Apr 2018, afternoon)*

Household 4

Tran Thi Kim Hoa

Household 5

Luu Thi Sim

Household 6

Phan Thi Khanh Linh

Source: Evaluation report (2018)

2.5 Sources of funding for house construction

The sources of funding for the 102 households that initiated construction in M3 was reported in Vista Analysis (2017). In M4 the Women's Union has collected data on each of the 33 households initiating construction in this reporting period.

The cost of construction and the sources of funding for construction in each package are collected in Table 2.5. In addition to the loan provided, households in package 1 have financed housing constructions with own contributions (cash- and in kind) and loans from other sources, such as family and friends.

Households in package 2 have received both a loan and a grant. Some (14) have not taken out the loan, but most (35) have. In addition, households in package 2 have contributed cash and in kind, and some households have also borrowed from other sources. One household has received funding from other donors.

Households in package 3 have only received a grant: 30 million VND for new construction and 20 million VND for retrofit. Some households have also received funding from other donors, such as the Vietnam Fatherland Front or local donors. In addition, they have contributed in kind and in some cases cash, and some have received loans from others.

Interestingly, these figures suggest that all packages are able to leverage significant finance from other sources. The near-poor in P1 and P2 can contribute more than the poor in P3.

The average construction cost per household is significantly higher for new construction than for retrofits. This is as expected. The average cost of new construction is highest in P1, but this average consists of only three households. The average cost of retrofit is highest in package 2.

The averages hide significant differences between households of the same package. For instance, in package 2 the household co-financing ranges from zero to 240 million VND.

Table 2.5 Total housing costs and sources of funding. Million VND

Package	Number of house-holds	Total housing cost	Grants NDF	Loans WU	Household co-financing (cash- and in kind)	Other donors	Loans from other sources
1	21	1 410		630	640		140
2	49	4 569	490	700	2 585	20	774
3	65	4 666	1 550		1 529	528	1 059
Total	133	10 645	2 040	1 330	4 754	548	1 973

Note: Cost of technical assistance, and administration cost of loan/grant are not included.

Table 2.6 Average housing costs and sources of funding. Million VND

Pack-age	**Retrofit or new coun-struction**	Number of house-holds	Average housing cost	Grants NDF	Loans WU	House-hold co-fi-nancing (cash- and in kind)	Other donors	Loans from other sources
1	Retrofit	18	49.4		30.0	17.2	-	2.2
	New con-struction	3	173.3		30.0	110.0	-	33.3
2	Retrofit	35	66.8	10.0	12.6	32.1	-	12.1
	New con-struction	14	159.3	10.0	18.6	104.3	1.4	25.0
3	Retrofit	40	46.3	20.0		13.1	5.1	8.2
	New con-struction	25	112.6	30.0		40.2	13.0	29.3

Note: Cost of technical assistance, and administration costs of loan/grant are not included.

3 Evaluation of impacts and outcomes among participants

Two evaluation activities were conducted in the M4 reporting period September 2017 – May 2018:

- A follow-up survey to participants in package 0, 1, 2
- Evaluation assessment of participants in package 3

The follow-up survey and evaluation assessment were both successfully completed in the period March-April 2018, with ISET, Hue University of Economics and Women's Union organizing the activities in Vietnam, while Vista Analysis collaborated on survey design and interpretation/analysis of survey results.

As agreed with the NDF in the contract the evaluation outcomes are reported in a separate document, Vista Analysis (2018). Results indicate that i) a loan of 30 million VND, in combination with requirements on how to construct, and technical assistance (package 1) seems insufficient to incentivize a significant share of near-poor households to invest in climate resilient housing and ii) a loan of 20 million VND and a grant of 10 million VND, in combination with requirements on how to construct, and technical assistance (package 2) incentives some of those offered the package, but still it seems insufficient to incentivize the majority of near-poor households to invest in climate resilient housing. The third incentive package, consisting of a grant of 20-30 million VND, succeeds in incentivizing a large majority of poor households to invest in climate resilient housing. This package is considerably more generous than the other two.

4 Workshops

The work plan and list of activities suggests two workshops in month 24 of the project

- Implemention review workshop
- Workshop to discuss preliminary results

The two workshops were successfully held back to back in Da Nang, April 2018. The outcome of the implemention review workshop is documented in chapter 2 of this monitoring report. The outcome of the workshop on preliminary results is documented in the evaluation report (Vista Analysis, 2018).

4.1 Tentative modifications to the work plan

The Implementation review workshop discussed the work plan of the final months of the projects (Milestone 5, May-November, 2018)[2]. The plans for the final months of the project were of course drawn up prior to the initiation of the project. When revisiting the work plan the team members including WU representatives were of the opinion that the overall outline is good, but some modifications will strengthen the plan compared to what was originally envisaged.

- *The final dissemination workshop should be strengthened*. The original program envisaged this workshop as a small event on a limited budget, and suggested "two national presentations" be prepared, but not actually presented at an event. The idea was to prepare the presentations and hand them over to WU, ISET and HCE at project's end for further dissemination. Given the effort that has been put into developing this program, and the successful results that have been achieved, the team members believe it will strengthen the impact of the project if we host a dissemination conference, not just a workshop. Da Nang City WU is the first agency in Vietnam to implement this climate resilient housing model, with practical achievements in benefiting poor and near-poor households in the city. Therefore, the WU wishes to share its results of its work and specific activity experience, especially practical methods applied under this project to relevant departments in the city, the national WU, and the WUs of Quang Nam and Quang Tri provinces (who are operating the Natural Disaster Prevention Fund of Central Vietnam), with a view to improving climate change adaptation, especially by integrating climate-resilient housing techniques into the construction of houses for poor and near-poor people, to reduce their vulnerability to climate change impacts.
- *Additional training in Da Nang should be carried out*. A conclusion from the project is that the training and technical assistance received by participating households significantly increases the level of resilience of their constructions. Hence, training seems to have an impact independent from finance. During the project implementation period, the Da Nang WU has organized 7 training workshops for 7 districts with 350 participants in the city. However, this number of participants is still very small and included mostly of WU staff, beneficiary households, and a small number of local construction workers. Meanwhile, the cadre of WU leaders at the community level, residential quarter leaders, local construction workers, active local WU staff, those most capable of communicating and sharing the project widely, still have limited knowledge and experience in climate change and technical requirements in building a storm-resistant house. Therefore, it is important to provide them with climate change knowledge and techniques in climate-resilient housing. In

[2] A request for an extension of the project from October to November is included in the Progress and Financial Report.

this perspective the team considers it important to extend the training that has been provided, to other households and wards in Da Nang. By teaching the message to other wards we should increase the long-term sustainability of the program.

- *Communication material should be prepared*. To accompany the dissemination conference, the team believes it is necessary to have some printed material that is left with conference participants and that can be shared with interested households in Da Nang as well as interested households in other cities. This material will also be useful for distribution during the next round of the revolving fund. We also suggest to prepare a short film for social media publication. Films are one of the most effective communication means in the information technology era. They can have an impact on all groups of the population, all age groups, with rapid delivery and high appeal. We expect to develop a succinct film that highlights the impacts of climate change in Vietnam in general and Da Nang city in particular, and especially describes specific activities of the WU across levels in preventing, adapting and responding to the impacts of climate change during the past period.

The project accounts show that house construction is less expensive that originally budgeted, freeing up financial space to finance the above highly useful activities within the overall financial envelope of the project.

5 The outreach conference in Da Nang

A conference to distribute knowledge and information on climate response and adaption took place in Da Nang January 30th, 2018. At the conference three households benefitting from the NDF project were invited to the stage to share the benefits/impacts of the NDF houses to their life, their family wellbeing and household development.

5.1 Purpose

- To share experience, knowledge and lessons on climate response and adaptation through constructing and renovating residential houses in accordance with storm-resilience technical requirements.
- To raise the awareness and to build the capacity of local staff and Women's Union members at multiple levels in coping with and adapting to climate change hazards, especially in the housing sector; through which, to increase the proactiveness and creativeness of women in general and female-headed/included households in particular in disaster risk reduction and climate change adaptation.

5.2 Participation

The conference saw the participation of over 300 delegates from the city and local stakeholders, including the Da Nang city leadership board, Vietnam Fatherland Front Committee in Da Nang, City Department of Natural Resource and Environment, City Department of Foreign Affairs, Youth's Union, Farmer's Union, Veteran's Union, City-level Women's Union, District- and Ward-level Women's Union, NDF beneficiary households, Da Nang television station and newspaper.

5.3 Program

The conference comprised two sections:

- Section 1: Consultation on storm-resilient housing design, construction and renovation.

  Form of conduct: A consultation desk was set at the main entrance of the event where a number of technical handbooks on storm-resilient housing was exhibited and the NDF architects who design the NDF houses were present and willing to respond to any questions/opinions of participants on storm-resilient housing and pertinent issues. (see photos of this consultation desk below).
- Section 2: Exchange of experience, knowledge and lessons

  Form of conduct: WU of 7 districts of Da Nang were divided into 7 teams to join to three forms of competition:

  Competition 1: Team introduction

  Using a technique of their choice each team quickly presented their organisation, work and

operation, strength and weakness, etc. However it had to be in relation to disaster risk reduction, safe housing improvement, and the role of women in responding to current and future climate change hazards.

Competition 2: Knowledge exchange

Each team prepared a short play to show its strength/opportunity in responding to climate change hazards to convey an important message on disaster risk reduction and climate change adaptation, with a focus on the importance of safe housing in poverty reduction, household stability and community development.

Competition 3: lessons learnt from the NDF beneficiary households.

Three households benefiting from the NDF project were invited to the stage to share the benefits/impacts of the NDF houses to their life, their family wellbeing and household development, issues needed to consider in safe housing construction/renovation, which technical principles were important to their house and which principles should be widely applied or replicated to other houses.

5.4 Conclusion

In short, this outreach conference has a strong link to the remainder of the NDF project through the sharing of experiences and lessons learnt by the city and district WUs and by beneficiary households whose houses have been technically improved in accordance with climate resilience standards under this project. In addition, the event also emphasised the importance of safe housing in enhancing the local and city resilience, and the significance of incentives in encouraging poor and near poor households to invest in climate resilient housing upgrades.

5.5 Photos from the conference

Consultation desk_ image 1

Consultation desk_ image 2

Consultation desk_ image 3

Overall view 1

Overall view 2

Overall view 3

Ms. Thu Ha, Chairwoman of Da Nang City Women's Union

Recognition of the district WUs actively joining the event

Activities performed by district WUs

Local partners of NDF project: HCE, ISET, WU, and technical design team (local architects).

6 Plans for the final milestone of the project

Plans for the final milestone 5 of the project (corresponding to original milestones 6 and 7) are detailed in Table 6.1. To avoid confusion the table is taken from the work plan of the grant agreement. See chapter 4.1 for suggested modifications and additions to the work-plan

Table 6.1 Work plan for milestone 5 (final milestone) of the project

Tasks	Org responsible	Other contributors	Due date, 2018						
			Apr	May	Jun	Jul	Aug	Sep	Oct/Nov
Follow up survey	Vista		X						
Data analysis and reporting on impacts of incentive packages	Vista			X					
Prepare communications materials for public and private actors	ISET								X
Prepare 2 national presentations	ISET and Vista								X
Suggested program of Dissemination workshop	Vista/ISET						X		
Dissemination conference (week of Oct 22-29)	ISET/WU								X
Prepare scientific publication no 1	Vista						X (first draft)		X (final)
Prepare scientific publication no 2	ISET/HCE						X (first draft)		X (final)
Draft dual language final project report	Vista/ISET/HCE								X

Inputs to Financial Report from each partner due	All	X
Financial report	Vista	X
Final report	Vista	X
Disbursement request	Vista	X

References

Vista Analysis (2016 a): *Implementing incentive for climate resilient housing among the urban poor in Vietnam: Inception report.* Report 2016/38. By Henrik Lindhjem, Tran Huu Tuan, Sofie Skjeflo, Haakon Vennemo, Tran Van Giai Phong and Tran Tuan Anh.

Vista Analysis (2016 b): *Incentive mechanisms and plan for implementation.* Report 2016/57. By Sofie Skjeflo, Tran Huu Tuan, Tran Van Giai Phong, Tran Tuan Anh, Haakon Vennemo and Henrik Lindhjem.

Vista Analysis (2017): *Implementing incentives for climate resilient housing among the urban poor in Vietnam – Monitoring report 1.* Report 2017/23. By Sofie Waage Skjeflo, Tran Huu Tuan, Tran Van Giai Phong, Tran Tuan Anh, Haakon Vennemo, Nina Bruvik Westberg and Jens Furuholmen.

Vista Analysis (2018): Implementing incentives for climate resilient housing among the urban poor in Vietnam – Evaluation report with preliminary findings. Report 2018/16. By Haakon Vennemo, Sofie Waage Skjeflo, Tran Huu Tuan, Tran Van Giai Phong, Tran Tuan Anh, Nina Bruvik Westberg and Jens Furuholmen.

Annex

A Participating households

This annex specifies the ward/commune and district of participating households as well as their loan and grant amounts, and whether they retrofit or build a new house.

Package P1 loan only

No.	Ward/Commune	District	List of parts of the house retrofitted/ rebuilt	Loan amount (VND)
1	Thanh Bình	Hải châu	**Retrofit:** heighten the walls, replace roof covers for wind resistance	30 000 000
2	Hòa Quý	Ngũ Hành Sơn	**Retrofit:** concrete slab built on one room to reinforce the house	30 000 000
3	Hòa Quý	Ngũ Hành Sơn	**New build:** concrete roof for wind resistance	30 000 000
4	Hòa Quý	Ngũ Hành Sơn	**New build:** concrete roof for wind resistance	30 000 000
5	Hòa Quý	Ngũ Hành Sơn	**Retrofit:** concrete slab built on one room to reinforce the house	30 000 000
6	An Hải Bắc	Sơn Trà	**Retrofit:** replace roof covers for wind resistance	30 000 000
7	An Hải Bắc	Sơn Trà	**Retrofit:** replace roof covers for wind resistance	30 000 000
8	An Hải Bắc	Sơn Trà	**Retrofit:** roof reinforcement, renovate sub-house, toilet	30 000 000
9	An Hải Bắc	Sơn Trà	**Retrofit:** replace roof covers for wind resistance	30 000 000
10	An Hải Bắc	Sơn Trà	**Retrofit:** replace roof covers for wind resistance	30 000 000
11	An Hải Bắc	Sơn Trà	**Retrofit:** replace roof covers, renovate kitchen, wall reinforcement for wind resistance	30 000 000
12	Hòa Thọ Đông	Cẩm Lệ	**Retrofit:** replace roof covers for wind resistance	30 000 000

13	Hòa Thọ Đông	Cẩm Lệ	**Retrofit:** replace roof covers for wind resistance	30 000 000
14	Hòa Thọ Đông	Cẩm Lệ	**Retrofit:** replace roof covers for wind resistance	30 000 000
15	Hòa Thọ Đông	Cẩm Lệ	**New build:** concrete roof for wind resistance	30 000 000
16	Hòa Thọ Đông	Cẩm Lệ	**Retrofit:** renovate sub-house, replace roof covers for wind resistance	30 000 000
17	Hòa Thọ Đông	Cẩm Lệ	**Retrofit:** replace roof covers for wind resistance	30 000 000
18	Hòa Thọ Đông	Cẩm Lệ	**Retrofit:** renovate sub-house for wind resistance	30 000 000
19	Hòa Thọ Đông	Cẩm Lệ	**Retrofit:** reinforce the roof, flooring, replace doors and windows for wind resistance	30 000 000
20	Hòa Khê	Thanh Khê	**Retrofit:** concrete slab built on one room to reinforce the house	30 000 000
21	Hòa Khánh Bắc	Liên Chiểu	**Retrofit:** concrete slab built on one room to reinforce the house	30 000 000

Note: Household 1-20 were included among the 102 of M3. Household 21 is added in M4.

Package P2 Loan and grant

No.	Ward/ Commune	District	List of parts of the house retrofitted/ rebuilt	Loan amount (VND)	Grant amount (VND)
1	Hoa Thuan Dong	Hai Chau	**Retrofit:** replace roof covers for wind resistance	20 000 000	10 000 000
2	Hoa Thuan Dong	Hai Chau	**New build:** concrete slab for bedroom for wind resistance	20 000 000	10 000 000
3	Hoa Thuan Dong	Hai Chau	**Retrofit:** replace roof covers for wind resistance	20 000 000	10 000 000
4	Hoa Thuan Dong	Hai Chau	**New build:** concrete roof for wind resistance	20 000 000	10 000 000

5	Nam Duong	Hai Chau	**Retrofit:** replace roof covers for wind resistance		10 000 000
6	Nam Duong	Hai Chau	**Retrofit:** replace roof covers for wind resistance		10 000 000
7	Nam Duong	Hai Chau	**Retrofit:** replace roof covers for wind resistance		10 000 000
8	Nam Duong	Hai Chau	**Retrofit:** replace roof covers for wind resistance		10 000 000
9	Nam Duong	Hai Chau	**Retrofit:** reinforce the roof, flooring, replace doors and windows for wind resistance		10 000 000
10	Phuoc Ninh	Hai Chau	**Retrofit:** renovate toilet, floor heightening, roof reinforcement for wind resistance		10 000 000
11	Khue My	Ngu Hanh Son	**New build:** concrete roof for wind resistance	20 000 000	10 000 000
12	Khue My	Ngu Hanh Son	**New build:** concrete roof for wind resistance		10 000 000
13	Man Thai	Son Tra	**New build:** concrete roof for wind resistance	20 000 000	10 000 000
14	Man Thai	Son Tra	**New build:** concrete roof for wind resistance	20 000 000	10 000 000
15	Tho Quang	Son Tra	**New build:** concrete slab for bedroom for wind resistance	20 000 000	10 000 000
16	Hoa Hiep Nam	Lien Chieu	**Retrofit:** concrete slab for bedroom, replace roof covers for wind resistance	20 000 000	10 000 000
17	Hoa Hiep Nam	Lien Chieu	**Retrofit:** concrete slab for bedroom, replace roof covers for wind resistance	20 000 000	10 000 000
18	Hoa Minh	Lien Chieu	**Retrofit:** replace roof covers for wind resistance		10 000 000

19	Hoa Minh	Lien Chieu	**Retrofit:** concrete slab for bedroom, replace roof covers for wind resistance	20 000 000	10 000 000
20	Hoa Minh	Lien Chieu	**Retrofit:** concrete slab for bedroom, replace roof covers for wind resistance	20 000 000	10 000 000
21	Hoa Minh	Lien Chieu	**Retrofit:** replace roof covers for wind resistance	20 000 000	10 000 000
22	Hoa Minh	Lien Chieu	**Retrofit:** replace roof covers for wind resistance		10 000 000
23	Hoa Minh	Lien Chieu	**Retrofit:** replace roof covers for wind resistance	20 000 000	10 000 000
24	Hoa An	Cam Le	**New build:** concrete roof for wind resistance	20 000 000	10 000 000
25	Hoa An	Cam Le	**Retrofit:** replace roof covers for wind resistance	20 000 000	10 000 000
26	Hoa An	Cam Le	**Retrofit:** concrete slab for bedroom, replace roof covers for wind resistance	20 000 000	10 000 000
27	Hoa An	Cam Le	**Retrofit:** concrete slab for bedroom, replace roof covers for wind resistance	20 000 000	10 000 000
28	Hoa An	Cam Le	**Retrofit:** replace roof covers for wind resistance	20 000 000	10 000 000
29	Hoa An	Cam Le	**Retrofit:** replace roof covers for wind resistance	20 000 000	10 000 000
30	Hoa Phat	Cam Le	**Retrofit:** heighten floor, replace roof covers for wind resistance		10 000 000
31	Hoa Phat	Cam Le	**Retrofit:** build a new room for wind resistance		10 000 000
32	Vinh Trung	Thanh Khe	**Retrofit:** replace roof covers for wind resistance		10 000 000

33	Vinh Trung	Thanh Khe	**Retrofit:** replace roof covers for wind resistance		10 000 000
34	Vinh Trung	Thanh Khe	**Retrofit:** replace roof covers for wind resistance	20 000 000	10 000 000
35	Vinh Trung	Thanh Khe	**Retrofit:** concrete slab for bedroom, replace roof covers for wind resistance	20 000 000	10 000 000
36	Vinh Trung	Thanh Khe	**New build:** concrete roof for wind resistance	20 000 000	10 000 000
37	Thanh Khe Dong	Thanh Khe	**Retrofit:** replace roof covers for wind resistance	20 000 000	10 000 000
38	Thanh Khe Dong	Thanh Khe	**Retrofit:** replace roof covers for wind resistance		10 000 000
39	Thanh Khe Dong	Thanh Khe	**New build:** concrete roof for wind resistance	20 000 000	10 000 000
40	Thanh khê Đông	Thanh Khê	**Retrofit:** concrete slab for bedroom, replace roof covers for wind resistance	20 000 000	10 000 000
41	Hoa Khuong	Hoa Vang	**Retrofit:** concrete slab for bedroom, replace roof covers for wind resistance	20 000 000	10 000 000
42	Hoa Tien	Hoa Vang	**Retrofit:** concrete slab for bedroom, replace roof covers for wind resistance	20 000 000	10 000 000
43	Hoa Tien	Hoa Vang	**Retrofit:** concrete slab for bedroom, replace roof covers for wind resistance	20 000 000	10 000 000
44	Hoa Tien	Hoa Vang	**New build:** concrete roof for wind resistance	20 000 000	10 000 000
45	Hoa Nhon	Hoa Vang	**New build:** concrete slab for bedroom for wind resistance	20 000 000	10 000 000
46	Hoa Nhon	Hoa Vang	**Retrofit:** concrete slab for bedroom for wind resistance	20 000 000	10 000 000

47	Hoa Nhon	Hoa Vang	**New build:** concrete slab for bedroom for wind resistance	20 000 000	10 000 000
48	Hòa Nhơn	Hòa Vang	**New build:** concrete slab for a room to ensure storm resilience	20 000 000	10 000 000
52	Khuê Mỹ	Ngũ Hành Sơn	**Retrofit:** Wall reinforcement, roof replacement for storm resilience	20 000 000	10 000 000

Note: Households 1-47 were among the 102 households of M3. Household 48 and 52 are added in M4.

Package P3 Grant only

No.	Ward/Commune	District	List of parts of the house retrofitted/ rebuilt	Grant amount (VND)
1	An Hải Đông	Sơn Trà	**Retrofit:** concrete slab for a room, replace roof covers for wind resistance	20 000 000
2	An Hải Đông	Sơn Trà	**New build:** in accordance with storm resistance	30 000 000
3	Tân chính	Thanh Khê	**Retrofit:** concrete slab for a room for wind resistance	20 000 000
4	Tân chính	Thanh Khê	**New build:** in accordance with storm resistance	30 000 000
5	Thạc Gián	Thanh Khê	**New build:** concrete roof for wind resistance	30 000 000
6	Thạc Gián	Thanh Khê	**Retrofit:** concrete slab for a room, replace roof covers for wind resistance	20 000 000
7	Thanh Khê Tây	Thanh Khê	**New build:** concrete slab for one room for wind resistance	30 000 000
8	Thanh Khê Tây	Thanh Khê	**Retrofit:** concrete slab for a room, replace roof covers for wind resistance	20 000 000
9	Hải Châu 1	Hải Châu	**New build:** in accordance with storm resistance	30 000 000

10	Thuận Phước	Hải Châu	**Retrofit:** heighten the floor, replace roof covers for wind resistance	20 000 000
11	Thuận Phước	Hải Châu	**Retrofit:** replace roof covers for wind resistance	20 000 000
12	Hải Châu 2	Hải Châu	**Retrofit:** replace roof covers for wind resistance	20 000 000
13	Hải Châu 2	Hải Châu	**Retrofit:** replace roof covers for wind resistance	20 000 000
14	Hòa Cường Nam	Hải Châu	**Retrofit:** concrete slab for one room, replace roof covers for wind resistance	20 000 000
15	Hòa Hải	Ngũ Hành Sơn	**Retrofit:** heighten the floor, replace roof covers for wind resistance	20 000 000
16	Hòa Hải	Ngũ Hành Sơn	**Retrofit:** concrete slab for one room, replace roof covers for wind resistance	20 000 000
17	Hòa Bắc	Hòa Vang	**Retrofit:** rebuild the living room, concrete slab on living room for wind resistance	20 000 000
18	Hòa Bắc	Hòa Vang	**Retrofit:** heighten the floor, replace roof, concrete slab for bedroom for wind resistance	20 000 000
19	Hòa Sơn	Hòa Vang	**Retrofit:** reinforce roof according to storm resistance standards	20 000 000
20	Hòa Sơn	Hòa Vang	**New build:** in accordance with storm resistance	30 000 000
21	Hòa Châu	Hòa Vang	**New build:** concrete slab for one room for wind resistance	30 000 000
22	Hòa Châu	Hòa Vang	**New build:** concrete slab for one room for wind resistance	30 000 000
23	Hòa Châu	Hòa Vang	**Retrofit:** concrete slab for bedroom for wind resistance	20 000 000

24	Hòa Liên	Hòa Vang	**New build:** concrete slab for one room for wind resistance	30 000 000
25	Hòa Liên	Hòa Vang	**Retrofit:** replace roof covers, replace doors and windows for wind resistance	20 000 000
26	Hòa Ninh	Hòa Vang	**New build:** concrete slab for one room for wind resistance	30 000 000
27	Hòa Ninh	Hòa Vang	**Retrofit:** concrete slab for bedroom, replace roof covers for wind resistance	20 000 000
28	Hòa Phước	Hòa Vang	**Retrofit:** concrete slab for bedroom	20 000 000
29	Hòa Khánh Nam	Liên Chiểu	**Retrofit:** Heighten the floor, replace roof covers for wind resistance	20 000 000
30	Hòa Khánh Nam	Liên Chiểu	**Retrofit:** heighten the floor, replace roof covers for wind resistance	20 000 000
31	Hòa Hiệp Bắc	Liên Chiểu	**Retrofit:** concrete slab for one room for wind resistance	20 000 000
32	Hòa Hiệp Bắc	Liên Chiểu	**New build:** concrete slab for one room for wind resistance	30 000 000
33	Khuê Trung	Cẩm Lệ	**Retrofit:** concrete slab for one room, replace roof covers for wind resistance	20 000 000
34	Khuê Trung	Cẩm Lệ	**New build:** concrete roof for wind resistance	30 000 000
35	An Hải Tây	Sơn Trà	**Retrofit:** wall consolidation, roof replacement for storm resistance	20 000 000
36	An Hải Bắc	Sơn Trà	**New build**	30 000 000
37	Hòa Quý	Ngũ Hành Sơn	**New build**	30 000 000
38	Hòa Thọ Đông	Cẩm Lệ	**New build**	30 000 000

39	Hòa Thọ Đông	Cẩm Lệ	**Retrofit:** wall consolidation, roof replacement for storm resistance	20 000 000
40	Thanh Bình	Hải Châu	**Retrofit:** concrete slab for bedroom, roof replacement for storm resistance	20 000 000
41	Hòa Khê	Thanh Khê	**New build**	30 000 000
42	Hòa Tiền	Hòa Vang	**Retrofit:** wall consolidation, roof replacement for storm resistance	20 000 000
43	Hòa Hiệp Nam	Liên chiểu	**Retrofit:** concrete slab for bedroom for wind resistance	20 000 000
44	Nam Dương	Hải Châu	**Retrofit:** concrete slab for bedroom for wind resistance	20 000 000
45	Hòa Thuận Đông	Hải Châu	**Retrofit:** kitchen and floor renovation, roof reinforcement for storm resistance	20 000 000
46	Thọ Quang	sơn Trà	**Retrofit:** kitchen renovation, roof replacement for storm resistance	20 000 000
47	Mân Thái	Sơn Trà	**New build**	30 000 000
48	Vĩnh Trung	Thanh Khê	**New build**	30 000 000
49	Vĩnh Trung	Thanh Khê	**New build**	30 000 000
50	Hòa An	Cẩm Lệ	**Retrofit:** wall consolidation, roof replacement for storm resistance	20 000 000
51	Hòa Minh	Liên Chiểu	**Retrofit:** wall consolidation, floor heightening, roof replacement for storm resistance	20 000 000
52	Hòa Minh	Liên Chiểu	**Retrofit:** wall consolidation, roof replacement for storm resistance	20 000 000
53	Hòa Nhơn	Hòa Vang	**New build**	30 000 000
54	Hòa Nhơn	Hòa Vang	**New build**	30 000 000

55	Thanh Khê Đông	Thanh Khê	**Retrofit:** wall consolidation, roof replacement for storm resistance	20 000 000
56	Hòa Phước	Hòa Vang	**Retrofit:** concrete slab for bedroom for wind resistance	20 000 000
57	Hòa Hiệp Nam	Liên Chiểu	**Retrofit:** concrete slab for bedroom for wind resistance	20 000 000
58	Hòa Minh	Liên Chiểu	**Retrofit:** concrete slab for bedroom for wind resistance	20 000 000
59	Phước Ninh	Hải Châu	**Retrofit:** kitchen and WC renovation, roof replacement for wind resistance	20 000 000
60	Vĩnh Trung	Thanh Khê	**New build**	30 000 000
61	An Hải Tây	Sơn Trà	**Retrofit:** roof and door/window replacement, floor heightening for wind resistance	20 000 000
62	Khuê Mỹ	Ngũ Hành Sơn	**Retrofit:** WC renovation, roof replacement for storm resistance	20 000 000
63	Hòa Thuận Đông	Hải Châu	**New build**	30 000 000
64	Hòa Quý	Ngũ Hành Sơn	**New build**	30 000 000
65	Hoa Tiến	Hòa Vang	**New build**	30 000 000

Note: Households 1-34 are among the 102 reported in M4. Households 35-66 are added in M4.

B Households that withdrew

This annex specifies the ward/commune and district of households who originally accepted the incentive package they were offered, but eventually did not construct a new house. In other words, they withdrew. The households' reasons for withdrawing is also specified.

Package P1 loan only

No.	Ward/commune	District	Reason for withdrawing
22	Phước Mỹ	Sơn Trà	The quarter is currently under adjustment of a planning zone that will renew set backs/land boundary, so that the household waits for this before constructing the house
23	Phước Mỹ	Sơn Trà	Brothers conflict due to family land division, so they postpone the plan of house improvement.
24	Phước Mỹ	Sơn Trà	The quarter is currently under adjustment of a planning zone that will renew set backs/land boundary, so that the household waits for this before constructing the house
25	Phước Mỹ	Sơn Trà	The quarter is currently under adjustment of a planning zone that will renew set backs/land boundary, so that the household waits for this before constructing the house
26	Phước Mỹ	Sơn Trà	Already access another loan for buying motorbike so afraid of accessing more loan (more debt). Unstable jobs with limited income so that afraid of incapable repayment. Roof cover replacement was done with financial support from relatives without loan interest.
27	Hòa Quý	Ngũ Hành Sơn	The family has not applied land title so that not want to borrow
28	Hòa Khê	Thanh Khê	The family lacks money to improve house. In 2018, the household is ranked as the poor and wait for other supports for housing improvement. The construction time is then out of the project time.
29	Hòa Thuận Tây	Hải Châu	The family has a member suffering from cancer, so they will not improve their house to save money for medical treatment.
30	Bình Hiên	Hải Châu	Homeowner suffers from stroke and paralytic, so the family has no capacity of loan repayment
31	Thanh Bình	Hải châu	The son is the main labour force but he died in a road accident, so the family will not borrow loan
32	Hòa Quý	Ngũ Hành Sơn	The family will self-renovate their house with sufficient financial support from relatives, so no need for borrowing loan
33	Phước Mỹ	Sơn Trà	The daughter suffers from serious disease, so focusing on medical treatment instead of housing improvement

34	Hòa Khánh Bắc	Liên Chiểu	The loan size is 30 million VND, not enough for housing improvement, so not borrow anymore
35	Hòa Khánh Bắc	Liên Chiểu	Plan to build house in 2018, but not identify the construction time yet
36	Hòa Khánh Bắc	Liên Chiểu	Await money borrowed from relatives to sufficiently finance housing renovation, so not identify the construction time yet
37	Hòa Thọ Đông	Cẩm Lệ	The family changed their mind about housing renovation so they did not borrow anymore
38	Hòa Thọ Đông	Cẩm Lệ	The family changed their mind about housing renovation so they did not borrow anymore
39	Hòa Thọ Đông	Cẩm Lệ	Already finished housing improvement with self-help of family savings and relative's support, no need for loan anymore
40	Hòa Thọ Đông	Cẩm Lệ	Moving to another place of residence, not borrow loan anymore
41	Hòa Thọ Đông	Cẩm Lệ	Family has not identified the construction time yet
42	Hòa Thọ Đông	Cẩm Lệ	Have no demand of loan borrowing but the ward WU submitted wrong name, confusing this household with the homeowner's name
43	Xuân Hà	Thanh Khê	Family members did not agree on housing renovation work, so not borrowing loan anymore

Note: 16 were listed as withdrawing in M3, but one erroneously. 7 withdrew in M4, for å total of 22.

Package P2 loan and grant

No.	Ward/commune	District	Reason for withdrawing
55	Hòa Thuận Đông	Hải châu	Construction time 10/2018
49	Hòa Hiệp Nam	Liên Chiểu	Construction time 08/2018
56	Vĩnh Trung	Thanh Khê	Household changes their priority, not want to borrow loan for housing improvement
54	Phước Ninh	Hải châu	The family unable to identify the construction time, so not want to take loan
51	Mân Thái	Sơn Trà	Houseowner suffers from serious disease and the family not want to take loan
53	Mân Thái	Sơn Trà	Family saving is very limited, not enough to match with project fund for cover construction cost
50	Hòa Hiệp Nam	Liên Chiểu	Chidren suffer from serious disease and the family wants to use money for medical treatment
57	Vĩnh Trung	Thanh Khê	Unknown
58	Hòa Khương	Hòa Vang	Located in planning zone (in industrical zone of Hoa Nhon) so the local government did not allow to build house
59	Hòa Khương	Hòa Vang	The family unable to identify the construction time, so not want to take loan

60	Hòa Khương	Hòa Vang	Unable to make repayment. Currently, in debt of 50 million VND from VBSP. If taking 10 million VND grant, it is too small to upgrade house
61	Mân Thái	Sơn Trà	Houseowner finds out she has got a cancer and does not want to continue.
62	Khuê Mỹ	Ngũ Hành Sơn	The family change priority, from storm resistant house consolidation to the WC renovation only
63	Hòa Phát	Cẩm Lệ	Houseowner finds out he suffers from a cancer, and not want to continue
64	Hòa Phát	Cẩm Lệ	Her son is in final stage of a cancer, her daughter just experienced a major medical treatment, so the family did not want to continue
65	Hòa Phát	Cẩm Lệ	The family saving is nothing, unable to make repayment, so, unable to improve the house if only receiving grant
66	Khuê Mỹ	Ngũ Hành Sơn	The family is unable to make loan repayment, so, unable to improve the house if only receiving grant
67	Phước Ninh	Hải châu	Many generations living in the same house and not agree on the house improvement need, so the family did not want to continue
68	Hòa Thuận Đông	Hải Châu	The health of houseowner is extremely weak so that the family did not want to continue.
69	Hòa Nhơn	Hòa Vang	Located in the planning zone, and local government did not allow to build house
70	Hòa Nhơn	Hòa Vang	Located in the planning zone, and local government did not allow to build house
71	Hòa Nhơn	Hòa Vang	Located in the planning zone, and local government did not allow to build house

Note: 15 were listed as withdrawing in M3 and 7 in M4 for a total of 22.

Package P3 Grant only

No.	Ward/commune	District	Reason for withdrawing
66	An Hải Bắc	Sơn Trà	Houseowner living with his parent and land title under name of his father who do not allow him to build house on the land
67	Hòa Khánh Bắc	Liên Chiểu	Houseowner's daughter suffers a serious disease and she want to focus on her medical treatment instead of housing construction
68	Hoòa Châu	Hòa Vang	Husband of houseowner (left home long time ago) returns and take his wife and children to another city to live.
69	An Hải Tây	Sơn Trà	Not have family contribution/saving, unable to mobilise other sources to fully cover construction cost
70	Hòa Khương	Hòa Vang	The daughter suffers a serious disease and the family focuses money on medical treatment for her

71	Hải Châu 1	Hải Châu	Being located in new planning zone with part of land is claimed for road extension and make the house too small. Other, the houseowner is too old and weak so the family did not want to continue.
72	Nại Hiên Đông	Sơn Trà	The family want to repaint walls, recover roof by themselves without conditioning like NDF require-ments
73	Nại Hiên Đông	Sơn Trà	No family savings/unable to mobilise other sources to match with NDF fund for fully covering housing improvement
74	Hòa Phước	Hòa Vang	The houseowner suffers a serious disease and take a long period of medical treatment so that do not want to renovate the house
75	Hòa Xuân	Cẩm Lệ	The son passed away in a road accident. His wife moves to other city for job seeking and leaves 2 kids to parents. Thus, the family did not want to continue.

Note: 4 were listed as withdrewing in M3, but one of those erroneously. 7 withdrew in M4, for a total of 10.

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