

Đ³ l³ ëï ³ ÝÇ í »ñ³ ϳ Ý· Ýí áÕ ¿Ý»ñ· »ï Çϳ lǨ ¿Ý»ñ· ³ Ëݳ láÕáñÁl³ Ý NÇÙݳ ¹ñ³ Ù

## Armenia Renewable Resources and Energy Efficiency Fund

î »Õ»Ï³ Çñ سÕ³ ù³  $\label{eq:continuous}$  Çý ç»éáōóÙ³ Ý  $\label{eq:continuous}$  Áݹ ñÏí³  $\label{eq:continuous}$  11 ¹åñáóÝ»ñÇ ëáódz ɳ ϳ Ý ÙáÝÇÃáñÇÝ Çí »ñ³  $\mu$ Ȗ $\label{eq:continuous}$ 

Ø<sup>3</sup> ÎÇë 2011Ã. **May 2011** 

Bulletin on social monitoring conducted in 11 schools involved in UHP project















## 2Úê Đ2Ø2ðàôØ.

°ñ"³ ÝÇ " Ù³ ñ½»ñÇ 11 ¹åñáóÝ»ñáðÙ Çñ³ ϳ Ýóí »É »Ý ;Ý»ñ ³ Ëݳ láÕáðĀl³ Ý  $\div$ áñÓ³ ñ³ ñ³ ϳ Ý ³ ß˳ ï ³ ÝùÝ»ñ: Øáï 4468 ³ ß³ Ï »ñï Ý»ñ °ñ"³ Ý ù³ Õ³ ùÇ " Ù³ ñ½»ñÇ ¹åñáóÝ»ñÇó û ï í »É »Ý ;Ý»ñ ³ Ëݳ láÕáðĀl³ Ý " ;Ç»éáðóÙ³ Ý ;ѳ Ù³ ϳ ñ ; Ç Ý»ñ¹ñÙ³ Ý ; áñÍ ÁÝó óÝ»ñÇó: ; ½; 2

\_ åñáóÝ»ñÇ ï Ýûñ»ÝÝ»ñÁ ËáëáðÙ »Ý ϳï³ñí³ [³ß˳ï³ÝùÝ»ñÇ í »ñ³µ»ñܳĒ Çñ»Ýó í »ñ³µ»ñÜáðÝùÇ ¨µ³í³ñ³ñí³ [áōÃܳÝ Ù³ëÇÝ: γï³ñí³ [³ß˳ï³ÝùÝ»ñÁ Ýå³ëï »É »Ý³ß³Ï »ñï Ý»ñÇ Ñ³×³ ËáðÙÝ»ñÇ µ³ñÓñ³óÙ³ÝÁ,¹åñáó³Ï³Ý ÙÇçáó³ éáðÙÝ»ñÇ Ãí Ç µ³ñÓñ³óÙ³ÝÁ ¨ÑÇí³Ý¹³óáðÃܳÝÃíÇ Ýí³½»óÙ³ÝÁ: ¾ç3

283 Ï »ñï Ý »ñÁ ËáëáôÙ »Ý Ï 3 ï 3 ñí 3 [ 3 ßË 3 ï 3 ÝùÝ »ñÇ í »ñ³ µ »ñŮ³ É Çñ »Ýó í »ñ³ µ »ñŮáôÝùÇ Ù³ ëÇÝ "· ݳ ѳ ï áôÙ ¿Ý »ñ. 3 Ëݳ ÛáÖáōĀÛ³ Ý 13 ëÁݳ ÓÝ »ñÇ ï 3 ½Ù³ Ï »ñåÙ³ Ý ³ ÝÑñ³ Å »ßï áōĀŪáōÝÁ: γ ï³ñí³ [ 3 ß˳ ï³ ÝùÝ »ñÁ Ýå³ ëï »É »Ý 13 ë³ ë»ÝÛ³ Ï Ý »ñÇ " 13 ÑÉÇ ×Ý »ñÇ Ñ³ ñÙ³ ñ³ í »ï áōĀŪ³ Ý ³ ëï Ç x³ ÝÇ µ³ ñOñ³ ÓÙ³ ÝÁ áō ýǽÏáōĒï áōñ³ ÜÇ ¹³ ëÁÝó ÓÝ »ñÇ Ñ³ x³ ËáōÙÝ »ñÇ ³ í »É³ ÓÙ³ ÝÁ: ¾ç 6

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° ñ ° 3 ÝÇ ° Ù ³ ñ½» ñÇ 11 ¹å ñá óÝ» ñá ōÙ Ç ñ ³ Ï ³ Ý ó í »É »Ý ¿Ý» ñ · ³ Ё Ý ³ lá Õá ō à l³ Ý ÷á ñ Ó ³ ñ ³ ñ ³ Ï ³ Ý ³ ß Ë ³ ï ³ Ý ù Ý » ñ:

ĐĐ T³ é³ í áō Ãláō ÝÁ T í »É ; Çñ ѳ Ù³ Ó³ ỦÝ áō Āláō ÝÁ ø³ Õ³ ù³ ỦÇÝ ç» éáō ÓÙ³ Ý Í ñ³ · ñÇ ß ñç³ Ý³ TÝ» ñáō Ù 11 ¹å ñá ÓÝ» ñáō Ù Çñ³ T³ ݳ ÓÝ» É ; Ý» ñ · ³ Ëݳ Ủá Õáō Ãl³ Ý  $\div$  áñ Ó³ ñ³ ñ³ T³ Ý ³ ß Ë³ T³ Ýù Ý» ñ , áñ Ç ³ ñ¹ Ủáō Ýù áō Ù ¹å ñá ÓÝ» ñáō Ù Tµ³ ñÓ ñ³ ݳ ѳ ñÙ³ ñ³ í » T áō Ãl³ ݳ ë TÇ׳ ÝÁ T TÝ í ½» Ý ç» éáō ÓÙ³ Ý Í³ Ëë» ñÁ:

²ÛëåÇëáí, c»éáõóÙ³Ý Ñ³Ù³Ï³ñ. »ñÇ Ï³éáõóáõÙÁ " ;Ý»ñ. 3 ϔÝ3 βάÕάõÃβ3 Ý 3 βϔ3 μ 3 ÝùÝ»ñÁ 3 í 3 ñμ í »f »Ý 11 ¹åñáóÝ»ñáõÙ: ê³ ĐCÙݳ¹ñ³ÙC í»ó ³Ùëí³ з ВЁз ї з ÝùС <sup>3</sup> ñ¹ĺáõÝù ë»ñï áñ»Ý ѳÙ³. áñĺ³Ïó»Éáí ĐĐϳé³í³ñáõÃĴ³Ý,ï»Õ³Ï³Ý ѳ Ù³ ÛÝùÝ»ñC. ÙЗñ½ЗĺÇÝ Çß˳ ÝáõÃÛáõÝÝ»ñÇ ݳ ˳. ͳ ÛÇÝ áō ßÇݳ ñ³ ñ³ ϳ Ý ÁÝÏ»ñáōÃÛáōÝÝ»ñÇ Ì ñ³⋅ñC ݳ ˳ Ó»éÝáõÃĴáõÝÁ Ñ»ï: ع(اً 3 Ï»Ýï ñáݳ ÝáõÙ ¹åñáóÝ»ñáĭÙ ç»éáõóÙ³ Ý įñ ѳٳϳñ. »ñÇ Ý»ñ¹ÝÙ³Ý áõ ¿Ý»ñ. ³ËݳÛáÕáõÃÛ³Ý Cñ3 Ï 3 Ý3 óÙ3 Ý зßЁзï зÝùÝ»ñС Báõñc: ĐCÙÝ<sup>3</sup> ¹ñ³ ÙC CÝŻݻñÝ»ñC ÃÇÙÁ í »ó 3 Üëí 3 ÁÝó óùáõÙ ûå»ñ³ï Cí Ï»ñåáí ³ß˳ï »ó ĺñ³·ñC ³Ĵë Ý߳ݳϳÉC ݳ˳Ó»éÝáõÃĴáõÝÁ 3í3ñïCÝ ѳ ëóÝ»fáñ ѳ Ù³ ñ:

Øáï 4468 ³ ß³ Ï »ñï Ý »ñ
°ñ "³ Ý ù³ Õ³ ùÇ " Ù³ ñ½ »ñÇ
¹åñáóÝ »ñÇó û ï í »É »Ý
¿Ý »ñ ³ Ëݳ ĴáÕáōÃĴ³ Ý "
ç »éáōóÙ³ Ý Ñ³ Ù³ ϳ ñ Ç
Ý »ñ¹ ñÙ³ Ý · áñÍ ÁÝó óÝ »ñCó:

Ì ñ³· ñÇ ëáódz ɳ ϳ Ý

³ ½1 »óáōÃĺáōÝÝ »ñÁ

å³ ñ½ »Éáō ѳ Ù³ ñ

ĐÇÙݳ ¹ ñ³ ÙÁ

í »ñáÑÇßĺ³ É

¹åñáóÝ »ñáōÙ Çñ³ ϳ ݳ óñ »ó
ëáódz ɳ ϳ Ý ÙáÝÇÃáñÇÝ·,
áñÇ ³ ñ¹ ĺáōÝùÝ »ñÁ

Ï Ýå³ ëï »Ý ĐÇÙݳ ¹ ñ³ ÙÇ ÏáÕ

ĬÝå³ëï »Ý ĐÇÙݳ¹ñ³ÙÇ ÏáÕÙÇo Çñ³I³Y³oī áU
³ÜÉ Íñ³·ñ»ñÇ áñ³ÏÇ μ³ñ»É³íܳÝÁ: êáódzɳϳÝ
ÙáÝÇÃáñÇݷdzñ¹ÜáōÝùÝ»ñÁ Ý»ñϳܳóí³Í »Ý ïíܳÉ
ï »Õ»Ï³·ñáōÙ Áëï ËÙμ»ñÇ` ïÝûñ»ÝÝ»ñ, ¹åñáóÇ
í³ñã³Ï³Ý ¨ áöëáōóã³Ï³Ý ³ÝÓݳϳ½Ù,
³β³Ï»ñïÝ»ñ:

Energy efficiency solutions piloted in 11 schools in Yerevan and marzes.

Within the scope of Urban Heating Project it was agreed with the Government that energy efficiency solutions will be piloted for 11 schools, with the resulting benefits of increased comfort and/or reduced energy bill in these schools.

Thus, the Fund finished the heating system rehabilitation and energy efficiency solutions implementation in 11 schools. It was a result of 6 months work of the R2E2 Fund, in close collaboration with Government of Armenia, communities and construction firms. This activity of the Fund was focused on heating system rehabilitation and energy efficiency solutions implementation. It took Fund's engineering team 6 months hard work to complete this important initiative successfully.

About 4468 students have benefited from heating system establishment and energy

actions implemented in 11 schools in Yerevan and marzes. The Fund was interested in social aspects of project implementation, to be more specific to reveal behavioral changes, user satisfaction issues and awareness on energy

efficiency measures.



ÜÏ ³ n` Đì ¾½D., ÆYŻݻňÝ»ňÇ ÃÇÙ /Ó³ ËÇOʻ³ ç/ ¶³· ÇÏ ê³ ñ· ël³ Ý, Đ³ lli °ë³ l³ Ý, Đñ³ Ýi î »ñ-¶³ µñÇ»ťl³ Ý, ² ñ½áōܳ Ý Đ³ ñáoÃlláōÝl³ Ý, ² £ÇÏ Âáéāl³ Ý

Photo: R2E2 Fund. Engineering team: (from left to right) Gaqik Sarqsyan,

The Fund was going to use the results of social monitoring for improvement of quality of provided services within the scope of similar projects. The results of the social monitoring are presented in this bulletin by groups; directors, teachers and administrative personnel, students.



¸åñáóÝ»ñÇ<mark>ï Ýûñ»ÝÝ»ñÁ</mark> ËáëáðÙ »Ý ϳï³ñí³Í
³ß˳ï³ÝùÝ»ñÇí»ñ³µ»ñÛ³É Çñ»Ýóí»ñ³µ»ñÙáðÝùÇ
"µ³í³ñ³ñí³ÍáðÃÛ³Ý Ù³ ëÇÝ, ÇÝāå»ë ݳ"
ϳï³ñáðÙ »Ý³é³ç³ñÏÝ»ñ ϳï³ñí³Í
³ß˳ï³ÝùÝ»ñÇáñ³ÏÁµ³ñ»É³í »Éáð ѳÙ³ñ:

î Yûñ»ÝÝ»ñÁ Ýß»óÇÝ, áñ µ³ í ³ ñ³ ñí ³ ĺ »Ý ¡³; ³ ñí ³ ĺ ³ ß˳; ³ ÝùÝ»ñáí ¨ ĺ ñ³· ÇñÁ áōÝ»ó»É; ½· ³ ÉÇ ¹ñ³ ¡ ³ Ý ³ ½¹»óáōÃĎáōÝ ³ ß³ Ï »ñï Ý»ñÇ áō áōëáōóÇāÝ»ñÇ í ³ ñù³· Í Ç, ÇÝāå»ë ݳ ¨ í »ñ³ µ»ñÙáōÝùÇ ÷á÷áËáōÃĎ³ Ý í ñ³:

2010-2011ÃÃ. ç»éáōóÙ³ Ý 뻽áÝáō٠ѳ ׳ ËáōÙÝ»ñÁ ݳ Ëáñ¹ 뻽áÝÇ Ñ³ ٻٳï 􂍂ÝáōÙ ³ í »É³ ó»É »Ý 10% -áí:

2010-2011ÃÃ. ç»éáōóÙ³ Ý 뻽áÝáōÙ ÙÇçáó³ éáōÙÝ»ñÇ ÃÇí Á ݳ Ëáñ¹ 뻽áÝÇ ѳ ٻٳï ÙÇçÇÝáōÙ³í »É³ó»É¿ 13% -áí:

î Yûñ»ÝÝ»ñÁ ÙdzÓ³ÍÝ Ýß»óÇÝ, áñ ç»éáōóÙ³Ý ¨
¿Ý»ñ.³ËݳÍáŌáōÃĴ³Ý³ß˳ï³ÝùÝ»ñÁ Ýå³ëï»É»Ý áñ³ÏĴ³É áōëáōóٳݷáñÍÁÝóóÇݨϳé³ç³ñÏ»Ý ³ŰɹåñáoÝ»ñÇÝ YáōĴÝå»ëÁݹ·ñÏí»ÉÍñ³·ñáōÙ:

àñå»ë³é³ç³ñÏáoÃÜáoÝï Ýûñ»ÝÝ»ñÁ Ýß»óÇÝ, áñ ßÇݳñ³ñ³ï³Ý³ß˳ï³ÝùÝ»ñÁϳñ»ÉÇ; ϳ½Ù³Ï»ñå»É³Üé³ÝÁ`ßÇݳñ³ñáoÃÛ³ÝÑ»ï ϳåí³ÍÙÇß³ñùϳ½Ù³Ï»ñåã³Ï³ÝËݹÇñÝ»ñÇóï ĬñóϳÝ·áñÍÁÝóóÇѳÙ³ï»ÕÇñ³Ï³Ý³óáoÙÇó Ëáoë³÷»ÉáōѳÙ³ñ: **Directors** of schools express their satisfaction and attitude toward implemented works.

The directors mentioned, that they are very satisfied with energy efficiency actions implemented in the schools. They mentioned the huge positive impact that the program has on students and teachers.

Üϳñ`Đì ¾½Đ. Đ³ nó³ ½náðló ²nÃÇÏÇ ÃÇĩ 8 ¹å náóÇï Ýûn»Ý ä³ñ · ¨Î áðnÖÇÝܳ ÝÇ Ñ»ï :

Photo: R2E2 Fund. Interview with Artik school number 8 director

In comparison with 2009-2010 heating season for 2010-2011 heating season the attendance rate were increased in average for 10%.

In comparison with 2009-2010 heating season for 2010-2011 heating season the number of different events increased in average for 13%. due to the fact that currently the schools have

comfortably heated classrooms, corridors, halls. For the same comparison period the morbidity rate decreased in average for 9%.

The directors also mentioned that energy efficiency actions implemented in the school somehow helped to reach the requirements for qualitative education, and they will recommend other schools to be involved in the project.

As a recommendation, directors suggested to conduct construction works in summer, in order to avoid many organizational problems related to parallel implementation of construction works and educational process.



àōëáōóÇāÝ»ñÁ, ÍÝáŌÝ»ñÁ "1åñáóÇí³ñā³Ï³Ý
3 ÝÓÝ3 ϳ ½ÙÁ ËáëáōÙ »Ý ϳ ï³ ñí³ Í
3 ß˳ ï³ ÝùÝ»ñÇí»ñ³ µ»ñឿ³ ÉÇñ»Ýó
µ³ í³ ñ³ ñí³ ÍáōÃឿ³ Ý Ù³ ëÇÝ "ÝßáōÙ ³ ß³ Ï»ñï Ý»ñÇ "áōëáōóÇāÝ»ñÇí³ ñù³· Íǹñ³ ϳ Ý
և÷áËáōÃĴáōÝÝ»ñÁ:

àōëáōóÇāÝ»ñÁ, ÍÝáŌÝ»ñÁ  $^{\circ}$  ¹åñáóÇ í  $^{\circ}$  ñā $^{\circ}$  Ï  $^{\circ}$  Ý  $^{\circ}$  ÝÓÝ $^{\circ}$  Ï  $^{\circ}$  ½ÚÁ ÝáōŰÝå »ë Ýß»óÇÝ, áñ  $^{\circ}$  í  $^{\circ}$  ñ $^{\circ}$  ñí  $^{\circ}$  ĺ »Ý  $^{\circ}$  I  $^{\circ}$  ñí  $^{\circ}$  ſ  $^{\circ}$  ßË $^{\circ}$  I  $^{\circ}$  ÝùÝ»ñáí , Ñ $^{\circ}$  I áōÏ ß»ßI »Éáí ¹ñ $^{\circ}$  Ýó áñ $^{\circ}$  Ï Á:  $_{\circ}$  3 ë $^{\circ}$  ë»Ý)3 Ï Ý»ñÁ Ñ $^{\circ}$  ×áōŰùáí »Ý Ñ $^{\circ}$  × 3 ËáōÙ ¹åñáó: 2ß $^{\circ}$  Ï »ñI Ý»ñÁ  $^{\circ}$  áōëáōóÇāÝ»ñÁ  $^{\circ}$  3 ë $^{\circ}$  ë»Ý)3 Ï »Ý ÙI ÝáōÙ 3 é $^{\circ}$  Ýó í »ñ $^{\circ}$  ñÏ áōÝ»ñÇ, áñÇ Ñ»I  $^{\circ}$  9 Ýùáí

²B³Ï»ñïÝ»ñÇÍÝáÕÝ»ñÁ Ȗ»Ë³Ý»ñdzÝáōÝÇó ßÝáñѳϳÉáōÃláōÝ ѳÜÝ»óÇÝ ï³ï³ñí³[³ß˳ï³ÝùÝ»ñÇ

N³Ù³ñ " Ýß»óÇÝ, áñ ³é³ Ýó »ñÏÙï »Éáō, ³ÝϳË »Õ³Ý³Ï³ÇÝ å³ÜÙ³ÝÝ»ñÇó, »ñ»Ë³Ý»ñÇÝ áōÕ³ñÏáōÙ »Ý ¹åñáó:

Üßí » Ó Ý³ ", áñ ѳ ñÙ³ ñ³ í » ï áñÃឿ³ Ý Ù³ ¡³ ñ¹³ ¡Ç μ³ ñÓñ³ óÙ³ Ý ßÝáñÑÇí Ýľ³ ï í áðÙ ¿ Ñ» ï ³ ùñùÇñ Ñá· »μ³ ݳ ¡³ Ý ï »Õ³ ß³ ñÅ` áōëáōóÇāÝ»ñÁ "
³ β³ [ »ñï Ý»ñÁ ³ í »ÉÇ Ýí Çñí ³ [ »Ý I ñó [ ³ Ý · áñÍ ÁÝó óÇÝ: ´³ ñÓñ³ ó»É ; ³ ß³ [ »ñï Ý»ñÇ ³ é³ ç³ ¹ ÇÙáōÃláōÝÁ, ÇÝāå»ë ݳ " Ý [ ³ ï í áōÙ ; ³ ß³ [ »ñï Ý»ñÇ " áōëáōóÇāÝ»ñÇ í ³ ñù³ · [ Ç ¹ñ³ [ ³ Ý ÷ á÷áËáōÃláōÝÝ»ň, ûñÇݳ [ ` I ³ ñ· ³ å³ ÑáōÃl³ Ý μ³ ñÓñ³ óáōÙ: Đ³ Ùñ³ ñ³ í »ï áōÃl³ Ý Ù³ [ ³ ñ¹ ³ [ Ç μ³ ñÓñ³ óÙ³ Ý βÝáñÑÇí áñáß ¹åñáoÝ»ñáōÙ ³ lÅÙ Ñݳ ñ³ í áñáōÃláōÝ ; ëï »ÕÍ í »É [ ³ ½Ù³ [ »ñå »Éáō Ï Çñ³ I Ýûňl³ ¹åñáóÝ»ñ:

Teachers, administrative personnel and parents of students express their satisfaction and mentioned behavioral and other positive changes among students and teachers.

Teachers, administrative personnel and parents of students mentioned that they are very satisfied with the quality of conducted works. Classrooms are very comfortable and students come to school with pleasure. The students and teachers enter the classes without coats and the appearances of teachers are more representative, which is very important

component of educational process.
Besides, as a result of entering class without coats students from elementary classes significantly improve handwritings.

Parents of children mentioned that they are grateful for implemented works and sent their children to school in any weather conditions, without having any doubt that child could get cold or have some flu.



ÜÏ ³ ñ Đì ¾¾Đ. üáľáōē ÉÙµÇ ùÝݳ ñľáōÙ ² ßĩ ³ ñ³ ÏÇ ØáōŌÝáō ó Ō³ Ù³ ēÇ ¹ å ñáóáōÙ: Photo: R2E2 Fund. Focus Group discussion in Mughni school

It was also mentioned, that due to the comfort level increase teachers and students are more devoted to the educational process. The students' progress increase, as well as there is a huge attitude change among students and teachers, for example improved school discipline. In some schools, due to the comfort level increase, they organized Sunday school for students.



Üßí »ó ݳ ", áñ ѳ ñù³ ñ³ í »ï ç»éáōóù³ Ý å³ ĺù³ Ýý»ñÁ Ëó Ý »Ý áōëáōóÇāÝ»ñÇ " ³ ß³ Ï »ñï Ý»ñÇ ³ í »ÉÇ Ñ³ x³ Ë ÙÇçáó³ éáōÙÝ»ñ ϳ ½ù³ Ï »ñå »Éáō ѳ ù³ ñ; ¸ åñáóÝ»ñÁ ā»Ý Ëáōë³ ÷áōÙ ÓÜ»éí ³ ³ ÙÇëÝ»ñÇÝ ÙÇçáó³ éáōÙÝ»ñ ϳ ½ù³ Ï »ñå »Éáōó:



ÜÏ ³ ñ` Đĩ ¾¾Đ. CIÁÏ áōē ÉÙµÇ CIÝݳ ñĨ áoÙ ² Bĩ ³ ñ³ Ï Ç ØáoŌÝáo ó Ō³ Ù³ eÇ ¹ å ñáoáoù: Photo: R2E2 Fund. Focus Group discussion in Mughni school

²í »ÉÇÝ, ¹åñáóÝ»ñÇó Ù»ÏÁÓÙ»éí ³ ³ ÙÇëÝ»ñÇÝ
ÙÇçáó³ éáōÙÝ»ñ ϳ½Ù³Ï»ñå»Éáō ѳÙ³ñ í³ ñÓáōÙ ¿ñ
³ é³ ÝÓÇÝ ¹³ ÑÉÇ×, ÇÝāÇ Ñ³ Ù³ ñ ½· ³ ÉÇ · áōÙ³ ñ ¿ñ
[³ ËëáōÙ: Ü»ñϳÜáōÙë, ϳï³ñí³[³ß˳ï³ÝùÝ»ñÇ
ßÝáñÑÇí, Ýßí³[¹åñáóÁ µáÉáñ ÙÇçáó³ éáōÙÝ»ñÁ
ϳ½Ù³Ï»ñåáōÙ ¿Çñ Ùáï, áñÁ ѳÝ· »óÝáōÙ ¿½· ³ ÉÇ
ýÇݳ Ýë³Ï³Ý Ëݳ ÜáÖáōÄÜáōÝÝ»ñÇ:

Æ ÉÑáðÙÝ í »ñáÑÇßܳ ÉÇ Ýß»í »ó, áñ 2009-2010 ç»éáðóÙ³ Ý ë»½áÝÇ Ñ»ï ѳ ٻٳ ï ³ Í ¹åñáóÇ ³ ÝÓݳ ϳ ½ÙÁ ³ í »ÉÇ Ñ³ ñÙ³ ñ³ í »ï ¿ ½· áðÙ 3 ÑÇÙݳ ϳ Ý å³ ï  $\times$ ³ éÝ»ñÇ ßÝáñÑÇí ` ³ )  $\mu$ ³ ñ»É³ í í »É ¿ ³ ß³ Ï »ñï Ý»ñÇ " áðëáðóÇāÝ»ñÇ ³ éáÕçáðÃláðÝÁ,  $\mu$ ) å³ Ï ³ ë»É ¿ ³ ñï ³ Ï ³ ñ· Çñ³ í Ç $\times$ ³ IÝ»ñÇ Í ³· Ù³ Ý íï ³ Ý· Á /Ññ¹³ ÑÝ»ñ, Ãáðݳ í áñáðÙÝ»ñ, Í Ý³ ëí ³ Í ùÝ»ñ/, · ) ÝÏ ³ ï í áðÙ ¿ áðëáðóÇāÝ»ñÇ " ³ ß³ Ï »ñï Ý»ñÇ ï ñ³ Ù³ ¹ñáõÃlЗÝ ¹ñ³ Ï ³ Ý ÷ á÷áËáðÃláðÝÝ»ñ ³ í »ÉÇ ³ Ïï Çí »Ý " Ï »Ýëáðñ³ Ë:

Comfortably heated schools stimulate teachers and students for different events organization. School personnel did not avoid events organization in winter. Moreover, in previous heating seasons one of the schools rented some hall outside of the school to organize winter events, which cost money, currently due to the project implementation, the winter events are organized in school, thus the school have some financial savings.

In comparison with last winter the outflow of student to other schools stopped. One of the teacher quoted the words of a student "we do not want to go home, in the school we feel more comfortable". Due to new heating system installations the schools have comfortable classrooms and halls for different events' organization, as a result of which student become more active and the school-student connection turn out to be stronger.

Moreover, it was mentioned that in comparison with 2009-2010 heating season schools personnel feel more comfortable due to 3 main reasons: 1) improved health of students and teachers, 2) decreased risk for emergency situations (fires, intoxications, injuries and so on) 3) improved mood; students and teachers are more active and enthusiastic.



<sup>2</sup>β<sup>3</sup> Ï »ñï Ý »ñÁ Ýβ » óÇÝ, áñ β<sup>3</sup> ï Ï ³ ñ "áñáōÙ »Ý <sup>3</sup> lý ÷ <sup>3</sup> ëï Á, áñ <sup>3</sup> lë ï <sup>3</sup> ñÇ Ýñ <sup>3</sup> Ýù Ï <sup>3</sup> ñáÕ <sup>3</sup> ó »É »Ý µ <sup>3</sup> ó »É ÷ á Ë <sup>3</sup> ñÇÝ í <sup>3</sup> Í å <sup>3</sup> ï áōÑ <sup>3</sup> ÝÝ »ñÁ <sup>13</sup> ë <sup>3</sup> ë »Ý l<sup>3</sup> ÏÝ »ñÁ û <sup>13</sup> ÷ á Ë »Éáō Ñ <sup>3</sup> Ù <sup>3</sup> ñ, ÙÇÝā <sup>1</sup> » é <sup>3</sup> Ý ól <sup>3</sup> É ï <sup>3</sup> ñÇ ÝÙ <sup>3</sup> Ý ÑÝ <sup>3</sup> ñ <sup>3</sup> í áñáōÃláōÝ

āľ³ñ, ù³ÝÇ áñ å³ï áōѳÝÝ»ñÁ ÑÇÝ ¿ÇÝ áō Ù»Ïáōë³óí³Í ¿ÇÝ åáÉÇ¿ÃÇɻݳÇÝ Ã³Õ³ÝÃáí: Students state their attitude toward implemented works and assess the need for energy efficiency lessons to be established in the school.

Students stated that they are thankful for new heating system establishment and energy efficiency actions implemented in their schools. They come to class with pleasure, and do not want to go home, because it is cold in their homes.

In comparison with last winter (2009-2010 heating season) it is much more comfortable in

classrooms and corridors, and the important thing is that at the present they may open the windows for fresh air, while last winter. due to the insulation of windows with plastic, they cannot have fresh air in classrooms.



ÜÏ ³ ñ` Đì ¾¾Đ. üáÏ áōë ËܵÇ ùÝݳ ñÏ áōŪ ì ¾ lùç í ¾ ñų ñ³ ÝáōÙ: Photo: R2E2 Fund. Focus Group discussion in Vayk college .

2β³ Ï »ñï Ý »ñÁ ÝáôlÝå »ë Ýβ»όÇÝ, áñ ѳ x³ ËáôÙÝ»ñÁ
¹åñáó ³ í »É³ ó»É »Ý, ÇÝāÇ Ñ»ï ¨³ Ýùáí μ³ ñÓñ³ ó»É ¿
³ é³ ç³ ¹ÇÙáõÃláōÝÁ: àñáß ³ β³ Ï »ñï Ý »ñ Ýß»όÇÝ , áñ
³ Ýól³ É ÓÙé³ ÝÁ Ùñë³ Í áõÃl³ Ý å³ ï x³ éáí ѳ x³ Ë
μ³ ó³ ϳ láôÙ ¿ÇÝ ¹³ ë»ñÇó, ÙÇÝā¹»é ³ lë ï ³ ñÇ ā»Ý
ÑÇí ³ ݹ³ ó»É: Üßí »ó ݳ ¨, áñ ³ Ýól³ É ï ³ ñí ³
ѳ ٻٳ ï ¹³ ë³ ë»Ýl³ Ï Ý»ñÁ ³ í »ÉÇ Ù³ ùáôñ »Ý,
ϳ ñÇù āϳ ¹³ ëÁ Áݹѳ ï »Éáō áō ¹³ ë³ ë»Ýl³ Ï Á Í ĒÇó
û¹³ ÷ áĒ»Éáō, ù³ ÝÇ áñ ݳ í ĀÇ í ³ é³ ñ³ ÝÝ»ñ ā»Ý
û· ï ³· áñĺ í »É:

<sup>2</sup>β<sup>3</sup> Ï »ñï Ý »ñÁ Ýß »óÇÝ, áñ <sup>3</sup> Ýó<sup>3</sup> [ÓÙé<sup>3</sup> ÝÁ ýǽÏ áöÉï áōñ<sup>3</sup> lÇ <sup>13</sup> ë »ñÁ <sup>3</sup> Ýó ¿ÇÝ Ï <sup>3</sup> óÝáōÙ <sup>1</sup> åñáóÇ µ³ Ï áōÙ, Ï <sup>3</sup> Ù <sup>3</sup> lÉ <sup>13</sup> ë <sup>3</sup> ë »Ýl<sup>3</sup> Ï Ý »ñáōÙ, áñáÝù ѳ ñÙ<sup>3</sup> ñ »óí <sup>3</sup> [ã¿ÇÝ í »ñáÑÇβl<sup>3</sup> É <sup>13</sup> ë »ñÇ Ñ³ Ù³ ñ: Ü »ñÏ <sup>3</sup> láōÙë <sup>3</sup> ß<sup>3</sup> Ï »ñï Ý »ñÁ áōÝ »Ý ѳ ñÙ<sup>3</sup> ñ³ í »ï ç »éáōóí áÕ ë åáñï <sup>3</sup> lÇÝ <sup>13</sup> ÑÉÇ× ¨Ñ³ ×áōlùáí ѳ ׳ ËáōÙ »Ý ýǽÏ áōÉï áōñ³ lÇ <sup>13</sup> ë »ñÇÝ: ÜáōllÝÁ í »ñ³ µ »ñáōÙ ; ѳ Ù³ ϳ ñ. ā³ lÇÝ <sup>13</sup> ëÁÝó óÝ »ñÇÝ: Moreover, students mentioned that attendance to the school and students' progress increase. Several students mentioned that last winter they often have flu, and missed classes; while this winter none of them had flu. In comparison with last winter the oil is not used for heating and it is much clearer in classrooms. In addition, while using oil for heating, in windy whether they often interrupt lessons to open the windows and freshening the class from oil smog.

Students also mentioned that in previous winter physical activity classes were conducted in the school yard or in other classes not adapted for physical activity classes. Currently they have well heated sport halls and attend the physical activity classes with pleasure. The same issue was mentioned for computer classes.



<sup>2</sup>β<sup>3</sup> Ï »ñï Ý »ñÁ Ýß » ó Ç Ý , áñ Ï <sup>3</sup> ñ ¨áñáðÙ » Ý ¿ Ý »ñ · <sup>3</sup> Ë Ý <sup>3</sup> ÛáÕáðÃÛ <sup>3</sup> Ý <sup>13</sup> ë Á Ý Ã <sup>3</sup> ó Ý »ñÇ Ï <sup>3</sup> ½ Ù <sup>3</sup> Ï »ñåáð Ù Á ¹åñáóáð Ù , ù <sup>3</sup> Ý Ç áñ · ï Ýáð Ù » Ý , áñ <sup>13</sup> ß <sup>3</sup> ï Ñ » ï <sup>3</sup> ù ñ ù Ç ñ á É á ñ ï ; : Ü ß í » ó , á ñ

3 å 3. 3 ë»ñáõݹÝ»ñÇ Ñ³ Ù³ ñ

¿Ý»ñ. ³ Ëݳ láÕáõÃláõÝÁ ³ í »ÉC

ĬĬ³ñ¨áñí Ç: ØÇ¨ÝáŏÛÝ Å³Ù³Ý<sup>́</sup>³Ï

ÝBÍ »ó, áñ <sup>13</sup> ëÁÝó óÝ»ñÁ å»ï ù ; ϳ½Ù³Ï»ñå»É VII

 $^{13}$   $\ddot{e}^{3}$   $\tilde{n}^{3}$   $\acute{V}$ Có  $\mu^{3}$   $\tilde{n}$ Oñ  $^{3}$   $\beta^{3}$   $\ddot{l}$  » $\tilde{n}$  $\ddot{l}$   $\acute{V}$ » $\tilde{n}$  $\ddot{l}$ C  $\tilde{N}^{3}$   $\tilde{l}$  $\tilde{l}$ 3  $\tilde{n}$ :



Üİ3ñ Đì ¼¼Đ. ciál áôể ËÙµÇ từÝݳ ñl áôÙ 2ßr 3 ñ3 l Ç ØáôŌÝáô Ã3 Ō3 Ù3 ëÇ 1å ñáóáôÙ:

Photo: R2E2 Fund. Focus Group discussion in Mughni school

Students mentioned that they would like to have energy efficiency classes in the school, because they find it interesting and useful. They mentioned that for future generations energy efficiency will be more important. Meanwhile they mentioned

that classes should be organized for students above VII class.

°ñ"3 ÝÇ " Ù3 ñ½»ñÇ 11
¹åñáóÝ»ñáōÙ
ĐÇÙÝ3¹ñ3ÙÁ
³í³ñï »É; ç»éáōóÙ³Ý
Ñ3Ù3ï3ñ. »ñÇ
ï3éáōóáōÙÁ "
¿Ý»ñ. 3ËÝ3ÜáŌáōÃÛ3Ý
3ßË3ï3ÝùÝ»ñÁ:



ÜÏ ³ ñ` Đì ¾¾Đ. ² ßĩ ³ ñ³ Ï Ç ØátỗÝát ó ỗ³ Ù³ ëÇ ¹ åñáó: ÞÇݳ ñ³ ñ³ ϳ Ý ³ ß˳ ï ³ ÝùÝ»ñ Photo: R2E2 Fund. Mughni school in Ashtarak. Construction works.

The R2E2 Fund completed the heating system establishment and energy efficiency measures implementation in 11 schools in Yerevan and marzes



ÜÏ ³ ñ` Đì ¾Đ.

²βĩ ³ ñ³ ÏÇ ØáiðÝái ³ ð³ Ù³ ëÇ ¹ å ñáó: ÞÇݳ ñ³ ñ³ ϳ Ý

³ ß˳ ï ³ ÝùÝ»ñÁ ëÏ ë»ťáió ³ é³ ç

Photo: R2E2 Fund. Mughni school in Ashtarak. Before the construction

works.



ÜÏ ³ ñ` Đì ¾¾Đ.

² ßĩ ³ ñ³ ÏÇ ØáðÔÝáð ó Õ³ Ù³ ëÇ ¹ å ñáó: ÞÇݳ ñ³ ñ³ ϳ Ý

³ ß˳ ï ³ ÝùÝ»ñÇ ³ í ³ ñï Çó Ñ»ï á:

Photo: R2E2 Fund. Mughni school in Ashtarak. After the completion of construction works.





ÜÏ ³ ñ` Đì ¾¾Đ. ² ṇÃÇÏ Ç ÃÇĨ 8 ¹ å ñáoÇ Ï ³ Ãë ³ Ø ï 3 Ý Ï 3 éáióáiù: Photo R2E2 Fund: Construction of boiler house in Artik number 8 school.



Üϳñ`Đì ¾Ð.

²ñÃÇÏÇÃÇÍ 8 ¹åñáóÇϳÃë³ឿ³ï áðÝ: ÞÇݳñ³ñ³ï³Ý

³ß˳ï ³ÝùÝ»ñdz[³ñï Çó Ñ»ï á:

Photo R2E2 Fund: Boiler house in Artik number 8 school.

After the completion of construction works.

ĐÇÙݳ ¹ñ³ ÙÇ ³ ß˳ ï ³ Ï Çó Đ³ ∭ °ë³ ឿ³ ÝÁ ͳ Ýáó ÝáõÙ ; ï³ ï ³ ñí ³ Í ³ ß˳ ï ³ ÝùÝ»ñÇÝ:



ÜÏ ³ ñ` Đì ¾\D.

² ṇĂÇÏ Ç ĀÇI 8 ¹ å ṇáóÇ Ï ³ Āë³ Ñ³ ï áiÝ: ÞÇݳ ṇ³ ṇ³ Ï ³ Ý

³ ß˳ ï ³ ÝùÝ» ṇÇ ³ ſ ³ ṇï Çó Ñ» ï á:

Photo R2E2 Fund: Boiler house in Artik number 8 school.

After the completion of construction works.

R2E2 Fund specialist Hayk Yesayan get acquainted with implemented works.