



PRINCESS SIRINDHORN
PROJECT

Children and Youth Development Conference

'Opportunities and Equity beyond Frontiers'



The Celebrations on the Auspicious Occasion of
Her Royal Highness Princess Maha Chakri Sirindhorn's
5th Cycle Birthday Anniversary 2nd April 2015

29 June – 1 July 2015
At CU Auditorium, Chulalongkorn University
Bangkok, Thailand

Children and Youth Development Conference 'Opportunities and Equity beyond Frontiers'



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Forward



Countries throughout the world have made great efforts to ensure that every child grows up and develops as a good and productive citizen of the society. Children and young adults in many countries have better lives while the well-being of children in some countries and regions has seen only small changes. Focusing on the Asia region, many factors that affect children's well-being still persist. Poor nutrition, poor health and hygiene prevent those children from achieving their full potential growth, reduce learning capacity and work performance and ultimately lead to poor quality of life. To overcome these problems and to prepare our future generations for the rapid changing world, concerted efforts are important. International agencies, governmental and non-governmental organizations and other different sectors have to work together to acquire and share information and to establish collaborations that can more effectively address complex problems impacting on the quality of life of children in the region.

The 'Children and Youth Development Conference: Opportunities and Equity beyond Frontiers' is an example of the collaborative efforts among countries in the Asia region. These collaborations have been established under the patronage of Her Royal Highness Princess Maha Chakri Sirindhorn of Kingdom of Thailand who has personal experiences of over 30 years in improving the quality of life of children and youth in deprived or under-developed areas throughout the country. An integrated approach model of Her Royal Highness's initiatives has been applying in ninety-five schools in ten countries. Success stories and good practices have been captured during their implementation. In order to share these stories to a wider audience and to celebrate on the auspicious occasion of Her Royal Highness Princess Maha Chakri Sirindhorn's 5th Cycle Birthday Anniversary 2nd April 2015, the Office of Her Royal Highness Princess Maha Chakri Sirindhorn's Projects, Thailand International Cooperation Agency (TICA) and other concerned organizations jointly organize this Conference.

It is hoped that this Conference will inspire development workers, educators, teachers, and policy makers to work and support each other in order to better the lives of the poorest and the neediest, particularly children who are the future of the country and the world.



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General Information



Over the past three decades, Her Royal Highness Princess Maha Chakri Sirindhorn has devoted her life to improving the well-being of people particularly children and youth who are the future of the country. Her Royal Highness has initiated many projects addressing various aspects of development – food and nutrition, health and hygiene, education, vocational skills and cooperatives, as well as environmental and cultural conservation. Her development work has reached the most disadvantaged children and families living in remote locations and under difficult living conditions without regard to race, sex, religion or nationality.

As an effective approach of children and youth development, Her Royal Highness's initiative has been expanding to improving the lives of children and youth living in neighboring countries. Through a school setting, a holistic and sustainable development has been implemented by teachers and the community with the joint support from key sectors like education, agriculture, health and local administrations. Children will be equipped with knowledge, skills and attitude for healthy life through a process called learning by doing. Community participation is also a key. Parents and other community members are encouraged to participate in school activities, in which knowledge can be transferred to families and communities. At present, there are 95 participating schools in 10 countries - Lao People's Democratic Republic, The Republic of the Union of Myanmar, Kingdom of Cambodia, Socialist Republic of Vietnam, Mongolia, Kingdom of Bhutan, People's Republic of Bangladesh, Republic of Indonesia, the Democratic Republic of Timor-Leste and Republic of the Philippines.

On the occasion of Her Royal Highness Princess Maha Chakri Sirindhorn's 5th Cycle Birthday Anniversary 2nd April 2015, the Office of Her Royal Highness Princess Maha Chakri Sirindhorn's Projects in collaboration with Thailand International Development Cooperation Agency (TICA) and other concerned organizations organize 'Children and Youth Development Conference' for the celebrations on this auspicious occasion.

The aim of the conference is to provide a forum for sharing information, experiences and knowledge on children and youth development among teachers, project coordinators and supporters from countries which participate in Princess Sirindhorn Project. Topics will cover (a) food and nutrition, health and hygiene; (b) education; (c) vocational skills and cooperatives and (d) environmental and cultural conservation

Participants are about 1,000 people including Ministers of the Ministry of Education, teachers and project coordinators from 10 countries and Thailand as well as from People's Republic of China, Kingdom of Tonga and Republic of India. In addition, partnerships including officials from the Royal Thai Government Ministries such as Ministry of Education, Ministry of Health, Ministry of Agriculture and Cooperatives, Royal Thai Police as well as international organizations such as the United Nations Educational, Scientific and Cultural Organization (UNESCO), the World Health Organization (WHO), World Food Programme (WFP) join and share their experiences in the conference.

Program



At Chulalongkorn University Auditorium

Monday 29, June 2015

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| 0730-0830 | Registration |
| 0830 | Guests to be seated in the auditorium |
| 0900 | Arrival of HRH Princess Maha Chakri Sirindhorn |
| 0900-0915 | Opening Ceremony
Report by <i>General Prayuth Chan-o-cha</i> , the Prime Minister
Royal Opening Address of HRH Princess Maha Chakri Sirindhorn |
| 0915-1000 | An Honorary Lecture: My Experience in Children and Youth Development
by <i>Her Royal Highness Princess Maha Chakri Sirindhorn</i> |
| 1000-1200 | Plenary 1: Opportunities and Equity for Children
by <i>High-Level Representatives from the Ministry of Education of 13 Countries</i> <ul style="list-style-type: none">• <i>Mr. Shams Uddin Ahmed</i>, Director, Directorate of Primary Education, Dhaka, Bangladesh• <i>H.E. Lyonpo Mingbo Dukpa</i>, Minister of Education, Bhutan• <i>H.E. Dr. Hang Chuon Naron</i>, Minister of Education, Youth and Sport, Cambodia• <i>H.E. Mr. Liu Limin</i>, Deputy Minister of Education, PR China• <i>Prof. Dr. Arief Rachman</i>, Executive Chairman of Indonesian National Commission for UNESCO, Ministry of Education and Culture, Indonesia• <i>H.E. Mrs. Sengdeuane lachanthaboune</i>, Deputy Minister of Education and Sports, Lao PDR• <i>H.E. Tumurbaatar Yadmaa</i>, Vice Minister of Education, Culture and Science, Mongolia• <i>Dr. Soe Win</i>, Permanent Secretary, Ministry of Education, Myanmar• <i>H.E. Hon. Br. Armin A. Luistro FSC</i>, Secretary of Department of Education, the Philippines• <i>H.E. Admiral Narong Pipatanasai</i>, Minister of Education, Thailand |

- *H.E. Mr. Abel da Costa Freitas Ximenes*, Vice Minister of Education, Timor-Leste
 - *Mr. Ponepate Taunisila*, Deputy Chief Executive Officer-Quality Assurance, Ministry of Education and Training, Tonga
 - *Mr. Nguyen Xuan Vang*, Director General, International Cooperation Department, Ministry of Education and Training (MOET), Vietnam
- Moderator: *Mr. Gwang Jo Kim*, Director, UNESCO Asia and Pacific Regional Bureau for Education

1200-1330 Lunch

1330-1500 Oral Presentation 1: Thailand Experiences

- Border Patrol Police School
by Police Lieutenant Colonel Kittaya Praditpong Border Patrol Police Company Commander, Border patrol Police Sub-Division 41
- School under the Office of Basic Education Commission
by Ms. Wongduan Suwansiri, Senior Academic Official
- School under the Bangkok Metropolitan Administration
by Ms. Duangmon Monritanupub and Ms. Ratchanok Seekhieokae, Teacher, professional level, Watsrinuanthamawimol School, Bangkok
- Novice school
by Phra Rakchat Dhammasatsano, Director of Wat Nam Kai Nan Ta Chai Suksa School, Nan Province
- Islamic school
by Mrs. Amina Chuma, Manager of Darulhikmah Islamic Private School, Narathiwat Province
- Community Learning Centre
by Dr. Yothin Sommanonont, Teacher, professional level, ONIE Sanpatong District, Chiang Mai Province

Moderator: *Mrs. Montira Horayangura Unakul*, UNESCO Asia and Pacific Regional Bureau for Education

1500-1630 Sharing Experiences through Exhibition

(Dress Code: National Dress)

Tuesday 30, June 2015

- 0800-0900 Registration
- 0900-1130 Plenary 2: Achieving Children's Learning and Well-being in the Context of the Sustainable Development Goals (SDGs)
- *Mr. Paolo Mattei*, Deputy Regional Director, World Food Programme Asia Regional Bureau
 - *Dr. Benjalug Namfa*, Senior Specialist in Academic Affairs and Learning Development, Ministry of Education, Thailand
 - *Ms. Mami Umayahara*, Programme Cycle Management Specialist and Programme Specialist for ECCE, UNESCO Asia and Pacific Regional Bureau for Education
- Moderator: *Professor Dr. Kraissid Tontisirin*, Advisor to HRH Princess Maha Chakri Sirindhorn's Projects
- 1130-1300 Lunch
- 1300-1530 Oral Presentation 2: Participating Countries' Experiences
- Bangladesh
 - Bhutan
 - Cambodia
 - Indonesia
 - Lao PDR
 - Mongolia
 - Myanmar
 - The Philippines
 - Timor-Leste
 - Vietnam
- Moderator: *Dr. Tinsiri Siribodhi*, Deputy Director, Southeast Asian Ministers of Education Organization
- 1530 Closing Session
by Mr. Don Pramudwinai, Deputy Minister of Foreign Affairs
- 1800-2030 Dinner and Cultural Shows

(Dress Code: National Dress)

FIELD TRIP
A school participating in Princess Sirindhorn Project

Wednesday 1, July 2015

Morning	Arrive at School <ul style="list-style-type: none">• A welcome speech• A brief on school profile• A brief on children and youth development activities initiated by HRH Princess Maha Chakri Sirindhorn• Sharing Visit school activities <ul style="list-style-type: none">• Children and youth development activities• Teaching and learning activities
1200	Lunch
Afternoon	Visit school activities (cont.) Q & A and Conclusion

(Dress Code: Casual)

My Experience in Children and Youth Development

by Princess Sirindhorn



Every year, for more than 30 years, we have a meeting on Children and Youth Development. The outcome and suggestions from these meetings help us to improve our performance. We hope that our work will be at least a drop in a vast ocean in improving lives of children and youth of our country.

When I was very young, I had a good opportunity to follow my parents in their trips outside Bangkok. Of course at that early age I could not make myself useful to anyone but at least I had different pictures of Thailand. I played with children and even adults in cooperatives or hill tribe villages. My parents and their entourage told me about what they were doing and some anecdotes. I saw my mother encourage villagers to learn some handicraft such as weaving to earn additional income. She also taught some grownups to read and write. Many of the villagers finished primary education but they forgot all about books. As you know literacy is very important for everybody. People who know how to read and write are less prone to being cheated. They can get more knowledge that is important for their livelihood. At that time the Department of Non-Formal Education was not established. During the school vacations my father gave me extra math lessons. He told me to calculate expense and income of a certain family that had quite a difficult life. Apart from math I had to conduct a little research on the price of items which were crucial for everyday life, how to spend less and how to increase the family income.

In my teen and later I can make myself more useful. While visiting villages I helped to interview people who need help in treatment of many illnesses, in education for children and youth, as well as in training for adults. I then wrote reports about the facts, and adding my own observations and suggestions. This is to facilitate the follow-up teams. I also helped in mobile medical units. My job was to deworm and to give oral polio vaccine. To deworm, our priority were thin kids with big and stony hard belly. Once after giving a spoonful of deworming syrup to a boy, he vomited an ugly long fat worm !!

During these visits, I noticed that some children were very thin. Some households had not enough food to eat, some parents had to go out to work

very early in the morning so they did not have time to prepare breakfast for their children. As I am always interested in food, I wanted to be of some assistance. I started my own project and experimented first on 3 remote schools run by Border Patrol Police force. I had other people as helping hands but I used mostly my own money to start the project. I bought farming utensils, seeds, for schools. For cooking part, I improved the kitchen, buying simple cooking gadgets, oil and some condiments. In the beginning I had not enough money to give food as often as I wish. After a while, I managed to give more food more frequent. I could also increase the number of schools in the project. I got some donation, even from abroad and more people to collaborate. I am proud that I can feed more children every working day. In the beginning my knowledge about nutrition came from health lessons that I studied during my time in primary school. Later on nutritionists help to decide what the children should eat and what the right amount is. The intake of good food including drinking soy milk, goat and/or cow milk will help children to grow up properly both body and brain.

To provide raw material for food, children are taught to plant fruit trees, and vegetables. We do not use the chemical fertilizers or if necessary as little as possible. Children are taught to make their own fertilizer or organic manure and compost from animal dung and dropping mixed with grass and leaves. Pesticides come also from plants, decomposed by bacteria. Trichoderma and beauveria are species of fungi that can be used as biocontrol agents for plant disease control. We teach also crop rotation to conserve soil and children will always have vegetables to eat the whole year. Vetiver grass is used for maintaining soil structure and preventing soil erosion. For animal husbandry, children learn about animal feed, animal health such as vaccination. The chicken and fish need special care. In some case there are problems such as certain fish don't grow during winter time. Some schools manage to increase the fish pond temperature, some choose to change the species of fish. Teachers and pupils are responsible for each activity in the project.

Later on other agencies joined in by providing additional programs or activities in my schools lunch project. The Ministry of Agriculture and Cooperatives has added projects such as training young farmers. Before most young farmers were youth outside a school system. It was like giving them a second chance to get knowledge and better jobs. Land Development Department has a program in training "soil doctors" and young soil doctors or little soil doctors for children. Now the Department of Irrigation develops also a curriculum for young water engineers about water management.

In addition to primary schools, we have a parallel program for nutrition in daycare centers. Food that has been given consisting of the 'Rice, Pea and Sesame' and the 'One Plate Food' menu which has many varieties but mainly consist of fried rice with egg, vegetable, meat in small pieces. Children have to eat everything in one spoonful and cannot be choosy. A teacher who put food in plates will give everyone the same amount not more egg to the child she prefers. We also look after adolescent health. Sometimes this age group is forgotten. We tend to think that grown up children can help themselves in finding food but in fact they need more food because their body uses up more protein and energy than smaller children.

My late American professor suggested that I should also look after the health of newborns and babies up to 3 years old. I keep statistics of birth weight/height and continue to keep track of weight and height ratio. In Thailand we have standard weight and height for each age group. Health of pregnant and lactating mothers has to be well looked after to have a healthy baby. Schools cooperate with local health care workers in vaccination, giving needed vitamins, deworming etc. We can be proud that mother and child mortality has decreased significantly.

Schools in our project plan agricultural activities according to the school consumption. Teachers take the weight and height of pupils every semester. Sub-district health officers come to check iodine deficiency, iron deficiency, giving multivitamin etc. An extra glass of milk or/and an extra egg is given to underweight kids, for overweight ones, we plan food intake with less starch and carbohydrate along with appropriate exercise.

With all the effort some children are still underweight or malnourished even we have administered nutrition program for many years. My hypotheses for these cases are because of (1) poor oral hygiene, and (2) their stomach infested by parasitic worms. Both are correct and now we are trying to solve both problems.

I have introduces cooperative system in these schools. Each school has a cooperative shop. The school farm sells products to the school cooperatives. Some of the products are processed and preserved food such as pickled vegetables. The school cooperative sells the products to the school kitchen. In a school shop there are other items such as consumer goods. Pupils, teachers and even parents and villagers who are members can buy their necessities in whole sale price. Children have to learn accounting. It helps to improve their performance in Mathematics. After working on the account of the shop for a

while the children will be able to make his or her own income and spending account. Side by side with keeping account they also record good deeds or good activities performed each day. Many children help teach their parents and their neighbors accounting and become volunteer accounting teachers. Each household has their family or farm account. With this knowledge most families save a lot of money. Saving is very important. With saving ones can make plan for the future. Cooperative committee members have to meet regularly, so they learn democratic principles in reasoning and listening to others' opinions. The secretary of the cooperative also learns to write better. Some schools use computers but they are still required to check their accounts by hand calculation and write them down in the books.

May I come back to health issues: we are interested in sanitation. School buildings and surrounding must be clean, especially kitchen, toilets. Food containers should not have poisonous matters.

Children from remote areas with no schools, and these places have not enough school age children so it is not cost-effective to build a proper school. We have dormitories for these children in nearby schools. In this case we should have 3 meals for children.

Safety in schools is very important. Now many schools have too many electronic gadgets, more than school electricity can support. There are danger of fire and electric shock.

I emphasize health first and at the same time I encourage teachers to learn more both content and teaching methods. Apart from sending teachers to further their studies, we use distant learning methods, so teacher can teach better.

In each school we have a school library and we encourage both pupils and teachers to read. Both teachers and pupils take turn to serve as librarians. Alumni and villagers are welcome to use the library. In school with internet connection useful websites are introduced and sometimes websites can be used offline. In addition, important educational tools and media are also provided such as solar power system, satellite system, a radio/cassette tape and a TV/video, dissemination tower, books, pencils, etc.

I encouraged and support children and youth to study as much as they can both in the country and abroad. There are many scholarships for both talented students and teachers to study in many countries for their bachelor,

master or doctoral degrees or short time workshops, camps, trainings and conferences such as in CERN in Switzerland, Lindau Meeting in Germany, GYSS in Singapore, Lawrence Livermore National Laboratory in the United States etc.

In addition to academic subjects, vocational training is an important part for children and youth development. After their primary school, if they don't have the opportunity to continue their studies, with their vocational skills, they would be able to find decent (honest) jobs such as being electricians, mechanics, carpenters, cooks, hairdressers, weavers, dressmakers etc. Alumni, parents, villagers can join. Young children can learn drawing, painting and handicrafts to train their muscles and coordination. I advise teachers to use local materials to make handicraft products. It helps to promote creativity and working skill. We have also shops as outlet to sell products from those pupils and villagers. The income from shops returns to villagers and schools.

School agricultural and farm program can also help villagers improve their livelihood. Fruit tree saplings, vegetable seeds, chicken, ducklings, that we use and propagate in school can be given villagers. His Majesty the King's "Sufficiency Economy" is encouraged. To quote the former UN Secretary-General Kofi Annan's speech in presenting an award to H.M. the King regarding Sufficiency Economy. I quote "His Majesty's Sufficiency Economy philosophy emphasizing moderation, responsible consumption and resilience to external shocks is of great relevance to communities everywhere during these times of rapid globalization. The philosophy middle path approach strongly reinforces the United Nations' own advocacy of a people-centered and sustainable path toward human development..." (unquote)

The concept of natural resource conservation should be taught at young age. They should learn about the conservation of water, forest and soil. Children and their parents planted trees in communal forest. There is a school botanical garden in each school and fortunately there are many young people who are interested in conservation. In 2011 we developed a Conservation of Forest Learning Activities Package. This package was designed to give an opportunity for children to have first-hand experience with the forest around them and their communities, to gain knowledge understanding, to appreciate the beauty of nature so they want to conserve and not destroy the nature.

In schools that I worked there are many ethnic groups so local culture, tradition and local wisdom should be learnt and conserved, for examples, religions or beliefs, handicrafts, herbal medicines, local songs and dances,

local folk tales, customs and traditions, languages and dialects, and even what they eat. Since the beginning, I advised health workers to try the food that the ethnic groups in our schools liked and we imitated the tastes and added the element of nutrition. Children should know their culture which are their roots, which they should be proud of.

As one can see that in undertaking children and youth development, we try to enhance the potential of our children in a balanced manner known as a holistic approach, covering intellectual development or cognitive learning (พุทธิศึกษา - Putti Suksa), moral development or moral education (จริยศึกษา - Jariya-Suksa), manual skills or working skills development or manual education (หัตถศึกษา - Hatta-Suksa) and lastly, self-care for good health capacity or physical education (พลศึกษา - Pala-Suksa). This is known as Thai traditional principle of learning found in the Thai Educational Plan since 1951.

In science subjects, knowledge about health, agriculture and local wisdoms can be taught by assigning children to do science projects. In malaria infested areas children conduct research on malaria and how to protect oneself from malaria. Some children work on using parts of local plants for dying cloth. Everything can be used as teaching media, even the construction of a new building especially in earthquake risk areas, the use of solar cell, the principle of hydroelectric etc.

Even now in Thailand there are still places without schools. We have tried to provide educational opportunity by various means, for example, by building schools at the sites where we have surveyed, and the villagers were very happy to help build the schools for their children. The schools can be under the responsibility of the Border Patrol Police or the Ministry of Education (such as under the Office of the Non-Formal and Informal Education or the Office of the Basic Education Commission) depending on the sites of the schools. There are many donors who would like to help build schools and buy educational, agricultural and kitchen equipment for the schools. They want to help, but the parents must also help. This is not just to save the money, but to show that they really want the schools for their children. More importantly, this can strengthen their participation and capacities, as well as to create a feeling of pride and ownership. There are repair, renovation and construction of some buildings to make sure that the children have enough safe places to study.

Besides ordinary schools we have the experience in working in religious schools, for example, schools for Buddhist novices, private schools for Islamic Faith or pondok or pondoh.

I have the opportunity to talk with friends from many countries who are interested in our methods in developing children and youth. Many have come to see our schools and have already cooperated with us in setting projects in their countries. Some ideas with some modification can be useful and applicable though our environment both physical and social is quite different. We can learn from one another.

Thank you for coming today. Your participation is invaluable for us. I should end my talk now. I wish to share with you my system of studies that we, Thai learn from our ancestors: in learning anything we must follow the 4 principles : ส (listen and read well), ใ (think and being observant), ุ (ask questions to know more) and ั (taking notes either on paper or digitally so we ourselves and other will retain that knowledge).

Wish you success in all your endeavors. For those who come from overseas, have a nice stay in Thailand!

Thank you for your attention

Plenary 1: Opportunities and Equity for Children



Remarks

H.E. Tumurbaatar Yadmaa

Vice Minister of Education, Culture and Science, Mongolia

Her Royal Highness Princess Maha Chakri Sirindhorn,
Ladies and gentlemen,
Honorary delegates,

On behalf of the Ministry of Education, Culture and Science of Mongolia and myself, I would like to wish Her Royal Highness Maha Chakri Sirindhorn a prosperous 5th cycle birthday anniversary.

The Ministry of Education, Culture and Science of Mongolia with financial aid from Her Royal Highness Princess Maha Chakri Sirindhorn of the Kingdom of Thailand has collaborated on the implementation of the project “Secondary school auxiliary facilities development to supply primary school students and dormitory students with high quality, nutritious, healthy and safe food products” since 2009 in the secondary school of Tuv Province, Altanbulag Soum.

The main goal of this project is to teach life-skills to students at a young age, to use safe healthy and nutritious food products that students themselves have planted without the effect of rising market prices. I am also pleased to say that this project will expand its implementation range to Erdenedalai of Dundgovi Province, Bayan and Buren of Tuv Province, Uulbayan of Sukhbaatar Province.

School meals are directly tied to guarantee the well being of society, healthy living, economic and population development and of any country.

Therefore, the Government of Mongolia has successfully implemented the program “School Snack” which serves meals to public and private primary school students/1st-5th grade/since 2006. In the Mongolian Constitution it is stated that “The Government shall provide all secondary education free of

charge” hence, the Government of Mongolia fully finances 27 billion tugrik’s for 251,000 primary students a year for the “School Snack” program.

Also in the Education Law it is stated that “Secondary school, vocational education and training institutions dormitory will be free of charge” hence, the Government of Mongolia fully finances 14 billion tugrik’s for 32.6 thousand students of the ages 6-18 for dormitory charges.

In scope of the program we have worked to serve necessary nutritious meals which will support the well-being and physical growth of students according to their age and physical features.

The implementation of the project has played an important role in ensuring children’s health and well-being of low income families with many children.

Under the program we have managed to use time and resources efficiently, develop and reform in the technology of the food and meal production industry in order to serve food products which meet the requirements of food safety.

The Government of Mongolia is working on the implementation of expanding the “School Snack” program; introduce step by step the system of providing students with hot meals, professional capacity building, training and public knowledge on meal and nutrition.

Within results of the implementation of the project financed by Her Royal Highness Princess Maha Chakri Sirindhorn the secondary school of Altanbulag Soum in Tuv Province now prepares not only their own dairy products from its cow farm, potato from its 1.5 hectare field but they sell to locals of the Soum. We are defining this “Priceless investment” of this project as giving the school teachers and students the opportunity to participate in the agriculture activities and create a school environment to support children’s health, mental and physical abilities, and develop skillful young generations for the future.

I would like to take this time to show my deepest gratitude to Her Royal Highness Princess Maha Chakri Sirindhorn for assisting in the development of Mongolian secondary school auxiliary facilities hence improving the food qualities of students.

Remarks
H.E. Mr. Abel da Costa Freitas Ximenes
Vice Minister of Education, Timor-Leste

Introductory Remarks: Expression of appreciation to the Initiative of Her Highness Princess, The Government of Thailand and the organizing committee for the invitation to the delegation of Timor-Leste to participate in this important event.

On behalf of Timor-Leste I would like to extend warm regards from the Minister of Education to her Highness Princess Maha Chakri Sirindhorn.

I would like to emphasize my discussion focus on the three question that addressed were to me. These questions are:

1. How would you manage/ provide opportunity and equity for children from disadvantaged communities in the country?
2. How is the Princess's initiative applied in the country context?
3. What should be the future direction of the Princess Project?

Let me begin with question 1,

1. How would you manage/ provide opportunity and equity for children from disadvantaged communities in the country?

Historically, Timor-Leste gained its Independence after a long struggle. The Restoration of Independence was on May 20, 2002 and legally Timor-Leste has its own Constitution to guarantee the sovereignty of state and the right to education of its citizen in the following article of Constitution as quoted:

“Article 59 (Education and culture)

1. The State shall recognize and guarantee that every citizen has the right to education and culture, and it is incumbent upon it to promote the establishment of a public system of universal and compulsory basic education that is free of charge in accordance with its ability and in conformity with the law.
2. Everyone has the right to equal opportunities for education and vocational training.
3. The State shall recognize and supervise private and co-operative education.

4. The State should ensure the access of every citizen, in accordance to their abilities, to the highest levels of education, scientific research and artistic creativity.

5. Everyone has the right to cultural enjoyment and creativity and the duty to preserve, protect and value cultural heritage...”

In paragraph 1 and 2 and 4 respectively emphasized on key statements such as “*universal and compulsory education*”, “*equal opportunities*”, and “*ensure the access of citizen*” that are a reflection of our state will to guarantee equity and the opportunity of every children to education.

In our **National Strategic Development Plan (SDP) 2011-2030** highlights the vision that “the true wealth of any nation is in the strength of its people”.

“*Our VISION* is that all Timorese children should attend school and receive a quality education that gives them the knowledge and skills to lead healthy, productive lives and to actively contribute to our nation’s developmen...”

How do we put into practice? The Ministry of Education has a Inclusive Education department that is in charged of looking after and making sure all children have equal opportunity and access to education, including disadvantaged children or children with disabilities and children of the poorest that live in very remote areas. This Department traditionally was dealing exclusively with physically challenged students. However, the Ministry has identified there are many vulnerable children that are excluded from attending primary school for four key areas: 1) *poverty*; 2) *language*; 3) *psychological needs*; 4) *physical disabilities*.

The first key barrier to equity is **poverty**. Although preschool and basic education is free in Timor-Leste, there are many hidden costs. Children are needed to watch siblings while their parents work in the fields, or they need to work in the fields themselves, thus not being able to attend school. The Ministry is working to identify children at-risk, as well as those who currently are not in school due to economic constraints. These children will then be provided with what they need-school supplies, clothing, soap, and in some cases, vouchers for parents so that their children may go to school instead of work.

The second component of this intervention is **language**. The Ministry commenced a project to promote use of mother tongue in early grade learning

in 3 language groups, to enable a smooth transition for mastering the official languages of Timor-Leste.

The third factor to be addressed is the issue of **psychological support**. There are many children that have trouble concentrating in school, or have left school, because of issues that could be helped by psychological support. Domestic violence, child abuse (by families and teachers), bullying, and teenage pregnancy are all issues that can keep children from coming to school, and that could be dealt with by professional services. Psychologists would be deployed to train teachers and interested community members on how to deal with students with these sorts of problems, and parent-teacher community support groups will be initiated.

The last component of this intervention is **physical challenges**. While the Ministry cannot alleviate their children disabilities, the government can train teachers to be aware of how to deal with their different needs-vision and hearing problems, mobility challenges, etc. In the future Timor-Leste plans to expand facilities for those with special education needs that cannot be taken care of in regular schools-blindness, complete deafness, etc.

A Main progress of the last 12 years after our independence is in the **ACCESS to EDUCATION**.

At Basic Education, enrolment rate went from 67%, in 2006, to 91%, in 2011.

Number of primary schools and secondary schools doubled.

Number of pre-secondary schools increased by 40%.

The Ministry of Education has its own Infrastructure facility Unit to assess and construct schools in remote areas, while distribution of teachers to the remote areas is intended to cover the most disadvantage children.

2. How is the Princess's initiative applied in the country context?

The visit of Princes of Thailand, Her Highness: Maha Cakri Sirendhorm was realized in January 2014.

Her Highness delivered a **formal speech in Timor-Leste, in our Parliament House** entitled: ***“Zero hunger challenges”*** which was very encouraging. Moreover in Her Highness speech, it was emphasized the importance of the school feeding program and nutrition for the children in the early

age that still require various vitamins and proteins for their growth. The speech at the Parliament contributed significantly to the awareness of food security and the necessity to take precocious measures to strategically design a proper strategy for the national food security with particular attention to children. Moreover, Her Highness raised national awareness for strengthening agriculture sector is a key drive to avoiding hunger (zero hunger challenge). A country like Thailand that has positioned itself as a one of five biggest number rice producing countries should be an example for Timor-Leste, as Thailand is still preoccupying with the food security of its citizens for the sake of sustainability.

The initiative of Her Highness Princess Maha Cakri Sirendhorm to initiate an school garden in basic education schools located in Hera and Acanuno, Timor-Leste, and the invitation to the delegation from Timor-Leste to visit Thailand, was a really essential learning curve *to integrate and cultivate the values of work ethics, perseverance, hygiene, environmental awareness, cultural conservation, business culture and self-reliance*, in promoting school agriculture. Timor-Leste has given a great opportunity to initiate a school agriculture project in which the children can use their extracurricular activities to cultivate various products of agriculture by using existing school land space for that purpose.

The team who visited Thailand on February 25 to March 4, 2014 noted the important points as following:

- The integration of the School Feeding Program, Nutrition Program and School Garden Projects, with agriculture and hydroponic system reduce the cost of vegetables for the School Feeding Program;
- The integration of agricultural activities such as land preparation, rotation of duties to regularly monitoring and taking care of school garden, poultry raising, use of school cooperatives with business oriented practices enable children to understand simple business concepts during their study;
- The importance of cleaning the vegetables, washing hands, serving school meal with uniform and gloves, establishing a simple clinic for measuring the weight and height of children and allowing first aid handling by students while providing basic understanding of health and hygiene;
- The integration of different line Ministries, such as agriculture, health, commerce and industry and cooperative etc.

- The importance of educating children at the early stage to understand agriculture and increase environmental awareness;
- The importance of guiding and giving orientation to the children to be able to create their own job without necessarily depending on the public sector;
- The importance of encouraging participation of parent teacher association and the neighboring community to extending the example, while giving the opportunity to other schools to replicate the model of school agriculture;
- The integration of traditional herbal track list into national system with 74 items listed, alternative maternal treatment post partum delivery, laboratory for herbal test and quality assurance system;
- The integration of the National Curriculum and local contents according to the needs of the specific reality is crucial.

These important lessons learned were translated during the visit by the Timor-Leste delegation into a draft action plan for the implementation of the School Garden Project in two schools of Timor-Leste.

3. What should be the future direction of the Princess Project?

The desired future direction of the Princess Project is:

- Expansion of the project to all schools to provide agriculture products to the school feeding program and reduce its cost;
- The project should include a Research and Development component to identify constraints faced in the field of implementation and recommend the improvement and application of modern technology;
- National and local ownership needs to be enhanced for the reason of capacity building and sustainability.

Thank you very much for your attention.

Remarks

Mr. Nguyen Xuan Vang

***Director General, International Cooperation Department,
Ministry of Education and Training (MOET), Vietnam***

Your Royal Highness Princess Maha Chakri Sirindhorn;
Your Excellencies: Ministers and Ambassadors;
Distinguished Guests;
Ladies and gentlemen,

It is my honor to represent HE. Minister of Education and Training of Vietnam, to participate in the “Children and Youth Development Conference: Expanding Opportunities and Equity beyond Frontier”, which is held on the Auspicious Occasion of Your Royal Highness Princess’ Birthday Anniversary. Please allow me to convey the happy birthday greetings from my Minister to Your Royal Highness, wishing you all the best wishes I can ever wish and I sincerely hope that Your Royal Highness Princess will continue supporting the education of young generations in Thailand in particular and in the Region in general.

Your Royal Highness, Excellencies, Ladies and gentlemen,

Within the limited timeframe, I would like to share with you some input from Vietnam in relation to the topic in question.

As you may know that Education in Vietnam is always considered as top national policy by all stakeholders such as the Party, the National Assembly, the Government, the society, which has been legalized in the Education Law “Education and training is the national top policy and the cause of the State and all fellow countrymen”. Right after Vietnam gained independence in 1945, the new and young Vietnamese Government issued the first Constitution in 1946, which stated very clearly that all Vietnamese citizens have equal rights and obligations, including opportunities and equity in education. The Education Law states: “Learning is the right and obligation of every citizen. Every citizen, regardless of ethnic origins, religions, beliefs, gender, family background, social status or economic conditions, has equal rights of access to learning opportunities. The State shall undertake social equity in education and enable everyone to get access to education. The State and the community shall help the poor have access to education, enabling gifted people to develop their

talents. The State shall give priority in enabling children of ethnic minorities, children of families in areas with special socio-economic difficulties, targeted groups of socially prioritized policies, disabled and handicapped persons and beneficiaries of other social policies to realize their learning rights and obligations”.

After decades of consistent implementation of the national top policy, Vietnam has obtained some achievements in education. Viet Nam completed universalization of primary education in 2000 and lower secondary education in 2010. Over 95% of six-year-old children enrolled in schools and 88.2% completed primary education on time. The overall adult literacy rate is 94.8%. In PISA 2012, Vietnam has entered the top 20 performers with mean score higher than the OECD average in all domains, ranks 8/65 countries and economies in scientific literacy and 17/65 countries and economies in mathematical literacy.

Nevertheless, the different levels of economic development between regions, in Viet Nam results in differences in opportunities and equity of education. In order to provide more opportunities for the people in remote and disadvantage regions, the Government of Viet Nam has policies and approved various programs and projects to support these disadvantaged localities such as: The Project to support Lower Secondary education in the most difficult areas (now in phase II); The Project to Support Education in Mountainous Areas with High Proportion of Ethnic Minorities and Disadvantaged Populations; and Support in Infrastructure for Schools for Gifted Students; The Project on Promoting the Teaching of Foreign Languages in the National Education System, and supporting infrastructure for schools; The project enhanced foreign language teaching and learning in the national education system; The School Education Quality Assurance Program (SEQAP); The Project on Consolidation of Schools, Classrooms and Teachers’ Dormitory for the years of 2014 - 2015 with a roadmap to the year 2020; The Project on a New Model of Schools (Viet Nam Escuela Nueva-VNEN) with a Learners-centred Approach in 1447 primary schools in 63 provinces/cities, of which 1143 primary schools in 20 most difficult provinces with poorest districts and high proportions of ethnic minority students.

The Project on “Improving the quality of life for children and youth in Asia-Pacific” has been sponsored by Her Royal Highness Princess Thailand since 2006 in three schools located in disadvantaged districts of Vietnam namely Ninh My Primary School (Ninh Binh province), Hung Thang Lower Secondary School (Quang Ninh province) and Cao Son Lower Secondary

School (Hoa Binh province). Together with other projects and programs implemented by the Government of Viet Nam, this project has contributed to strengthening education infrastructure and equipment for schools and classrooms in Viet Nam. The project has helped improve the quality of life for students in the participating schools especially the disadvantaged students studying in semi-boarding schools. Importantly, the project has helped students to develop a humanitarian perspective-learning to work hard, live with high level of responsibilities, work and think for other people.

We hope that, together with investment from the Government, the Ministry of Education and Training and the local authorities, those three schools mentioned above and other schools in the disadvantaged regions of Viet Nam will continue receiving the attention and support from Your Royal Highness Princess of Thailand to help students in the disadvantaged areas of Viet Nam have better learning and living conditions. This implies not only hygienic meals but also raising awareness of the community about education for sustainable development.

On behalf of the Ministry of Education and Training of Vietnam, I would like to convey my sincere thanks to Your Royal Highness Princess of Thailand, the Office of the Princess of Thailand and the Thai International Cooperation Agency for helping the Education and Training sector over the years and I really look forward to your continued support in the coming years.

Your Royal Highness Princess Maha Chakri Sirindhorn;
Your Excellencies, Distinguished Guests and Ladies and Gentlemen,

I wish you all good health, happiness and wish the Conference a great success!

Thank you very much for your attention!

Plenary 2: Achieving Children's Learning and Well-being in the Context of the Sustainable Development Goals



Sustainable Development Goals

❖ GOAL 1

End poverty in all its forms everywhere

1.1 By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than \$1.25 a day

1.2 By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions

1.3 Implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable

1.4 By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance

1.5 By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters

1.a Ensure significant mobilization of resources from a variety of sources, including through enhanced development cooperation, in order to provide adequate and predictable means for developing countries, in particular least developed countries, to implement programmes and policies to end poverty in all its dimensions

1.b Create sound policy frameworks at the national, regional and international levels, based on pro-poor and gender-sensitive development strategies, to support accelerated investment in poverty eradication actions

❖ GOAL 2

End hunger, achieve food security and improved nutrition and promote sustainable agriculture

2.1 By 2030, end hunger and ensure access by all people, in particular the poor and people in vulnerable situations, including infants, to safe, nutritious and sufficient food all year round

2.2 By 2030, end all forms of malnutrition, including achieving, by 2025, the internationally agreed targets on stunting and wasting in children under 5 years of age, and address the nutritional needs of adolescent girls, pregnant and lactating women and older persons

2.3 By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment

2.4 By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality

2.5 By 2020, maintain the genetic diversity of seeds, cultivated plants and farmed and domesticated animals and their related wild species, including through soundly managed and diversified seed and plant banks at the national, regional and international levels, and ensure access to and fair and equitable sharing of benefits arising from the utilization of genetic resources and associated traditional knowledge, as internationally agreed

2.a Increase investment, including through enhanced international cooperation, in rural infrastructure, agricultural research and extension services, technology development and plant and livestock gene banks in order to enhance agricultural productive capacity in developing countries, in particular least developed countries

2.b Correct and prevent trade restrictions and distortions in world agricultural markets, including through the parallel elimination of all forms of agricultural export subsidies and all export measures with equivalent effect, in accordance with the mandate of the Doha Development Round

2.c Adopt measures to ensure the proper functioning of food commodity markets and their derivatives and facilitate timely access to market information, including on food reserves, in order to help limit extreme food price volatility

❖ GOAL 3

Ensure healthy lives and promote well-being for all at all ages

3.1 By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births

3.2 By 2030, end preventable deaths of newborns and children under 5 years of age

3.3 By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases

3.4 By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well being

3.5 Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol

3.6 By 2020, halve the number of global deaths and injuries from road traffic accidents

3.7 By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes

3.8 Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all

3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination

3.a Strengthen the implementation of the World Health Organization Framework Convention on Tobacco Control in all countries, as appropriate

3.b Support the research and development of vaccines and medicines for the communicable and non-communicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines, in accordance with the Doha Declaration on the TRIPS Agreement and Public Health, which affirms the right of developing countries to use to the full the provisions in the Agreement on Trade-Related Aspects of Intellectual Property Rights regarding flexibilities to protect public health, and, in particular, provide access to medicines for all

3.c Substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and small island developing States

3.d Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks

❖ GOAL 4

Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

4.1 By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes

4.2 By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education

4.3 By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university

4.4 By 2030, increase by [x] per cent the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship

4.5 By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations

4.6 By 2030, ensure that all youth and at least [x] per cent of adults, both men and women, achieve literacy and numeracy

4.7 By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non- violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development

4.a Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all

4.b By 2020, expand by [x] per cent globally the number of scholarships available to developing countries, in particular least developed countries, small island developing States and African countries, for enrolment in higher education, including vocational training and information and communications technology, technical, engineering and scientific programmes, in developed countries and other developing countries

4.c By 2030, increase by [x] per cent the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially least developed countries and small island developing States

❖ GOAL 5

Achieve gender equality and empower all women and girls

- 5.1 End all forms of discrimination against all women and girls everywhere
 - 5.2 Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation
 - 5.3 Eliminate all harmful practices, such as child, early and forced marriage and female genital mutilation
 - 5.4 Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate
 - 5.5 Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life
 - 5.6 Ensure universal access to sexual and reproductive health and reproductive rights as agreed in accordance with the Programme of Action of the International Conference on Population and Development and the Beijing Platform for Action and the outcome documents of their review conferences
-
- 5.a Undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance and natural resources, in accordance with national laws
 - 5.b Enhance the use of enabling technology, in particular information and communications technology, to promote the empowerment of women
 - 5.c Adopt and strengthen sound policies and enforceable legislation for the promotion of gender equality and the empowerment of all women and girls at all levels

❖ GOAL 6

Ensure availability and sustainable management of water and sanitation for all

- 6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all
- 6.2 By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations
- 6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and increasing recycling and safe reuse by

[x] per cent globally

6.4 By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity

6.5 By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate

6.6 By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes

6.a By 2030, expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programmes, including water harvesting, desalination, water efficiency, wastewater treatment, recycling and reuse technologies

6.b Support and strengthen the participation of local communities in improving water and sanitation management

❖ GOAL 7

Ensure access to affordable, reliable, sustainable and modern energy for all

7.1 By 2030, ensure universal access to affordable, reliable and modern energy services

7.2 By 2030, increase substantially the share of renewable energy in the global energy mix

7.3 By 2030, double the global rate of improvement in energy efficiency

7.a By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology

7.b By 2030, expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, in particular least developed countries and small island developing States

❖ GOAL 8

Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

8.1 Sustain per capita economic growth in accordance with national circumstances and, in particular, at least 7 per cent gross domestic product growth per annum in the least developed countries

8.2 Achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value-added and labour-intensive sectors

8.3 Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services

8.4 Improve progressively, through 2030, global resource efficiency in consumption and production and endeavour to decouple economic growth from environmental degradation, in accordance with the 10-year framework of programmes on sustainable consumption and production, with developed countries taking the lead

8.5 By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value

8.6 By 2020, substantially reduce the proportion of youth not in employment, education or training

8.7 Take immediate and effective measures to secure the prohibition and elimination of the worst forms of child labour, eradicate forced labour and, by 2025, end child labour in all its forms, including the recruitment and use of child soldiers

8.8 Protect labour rights and promote safe and secure working environments for all workers, including migrant workers, in particular women migrants, and those in precarious employment

8.9 By 2030, devise and implement policies to promote sustainable tourism that creates jobs and promotes local culture and products

8.10 Strengthen the capacity of domestic financial institutions to encourage and expand access to banking, insurance and financial services for all

8.a Increase Aid for Trade support for developing countries, in particular least developed countries, including through the Enhanced Integrated Framework for Trade-Related Technical Assistance to Least Developed Countries

8.b By 2020, develop and operationalize a global strategy for youth employment and implement the Global Jobs Pact of the International Labour Organization

❖ GOAL 9

Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

9.1 Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all

9.2 Promote inclusive and sustainable industrialization and, by 2030, significantly raise industry's share of employment and gross domestic product, in line with national circumstances, and double its share in least developed countries

9.3 Increase the access of small-scale industrial and other enterprises, in particular in developing countries, to financial services, including affordable credit, and their integration into value chains and markets

9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities

9.5 Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and increasing the number of research and development workers per 1 million people by [x] per cent and public and private research and development spending

9.a Facilitate sustainable and resilient infrastructure development in developing countries through enhanced financial, technological and technical support to African countries, least developed countries, landlocked developing countries and small island developing States

9.b Support domestic technology development, research and innovation in developing countries, including by ensuring a conducive policy environment for, inter alia, industrial diversification and value addition to commodities

9.c Significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries by 2020

❖ GOAL 10

Reduce inequality within and among countries

10.1 By 2030, progressively achieve and sustain income growth of the bottom 40 per cent of the population at a rate higher than the national average

10.2 By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status

10.3 Ensure equal opportunity and reduce inequalities of outcome, including by eliminating discriminatory laws, policies and practices and promoting appropriate legislation, policies and action in this regard

10.4 Adopt policies, especially fiscal, wage and social protection policies, and progressively achieve greater equality

10.5 Improve the regulation and monitoring of global financial markets and institutions and strengthen the implementation of such regulations

10.6 Ensure enhanced representation and voice for developing countries in decision-making in global international economic and financial institutions in order to deliver more effective, credible, accountable and legitimate institutions

10.7 Facilitate orderly, safe, regular and responsible migration and mobility of people, including through the implementation of planned and well-managed migration policies

10.a Implement the principle of special and differential treatment for developing countries, in particular least developed countries, in accordance with World Trade Organization agreements

10.b Encourage official development assistance and financial flows, including foreign direct investment, to States where the need is greatest, in particular least developed countries, African countries, small island developing States and landlocked developing countries, in accordance with their national plans and programmes

10.c By 2030, reduce to less than 3 per cent the transaction costs of migrant remittances and eliminate remittance corridors with costs higher than 5 per cent

❖ GOAL 11

Make cities and human settlements inclusive, safe, resilient and sustainable

11.1 By 2030, ensure access for all to adequate, safe and affordable housing and basic services and upgrade slums

11.2 By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons

11.3 By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries

11.4 Strengthen efforts to protect and safeguard the world's cultural and natural heritage

11.5 By 2030, significantly reduce the number of deaths and the number of people affected and decrease by [x] per cent the economic losses relative to gross domestic product caused by disasters, including water-related disasters, with a focus on protecting the poor and people in vulnerable situations

11.6 By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management

11.7 By 2030, provide universal access to safe, inclusive and accessible, green and public spaces, in particular for women and children, older persons and persons with disabilities

11.a Support positive economic, social and environmental links between urban, peri-urban and rural areas by strengthening national and regional development planning

11.b By 2020, increase by [x] per cent the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, develop and implement, in line with the forth-coming Hyogo Framework, holistic disaster risk management at all levels

11.c Support least developed countries, including through financial and technical assistance, in building sustainable and resilient buildings utilizing local materials

❖ GOAL 12

Ensure sustainable consumption and production patterns

12.1 Implement the 10-year framework of programmes on sustainable consumption and production, all countries taking action, with developed countries taking the lead, taking into account the development and capabilities of developing countries

12.2 By 2030, achieve the sustainable management and efficient use of natural resources

12.3 By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses

12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment

12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse

12.6 Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle

12.7 Promote public procurement practices that are sustainable, in accordance with national policies and priorities

12.8 By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature

12.a Support developing countries to strengthen their scientific and technological capacity to move towards more sustainable patterns of consumption and production

12.b Develop and implement tools to monitor sustainable development impacts for sustainable tourism that creates jobs and promotes local culture and products

12.c Rationalize inefficient fossil-fuel subsidies that encourage wasteful consumption by removing market distortions, in accordance with national circumstances, including by restructuring taxation and phasing out those harmful subsidies, where they exist, to reflect their environmental impacts, taking fully into account the specific needs and conditions of developing countries and minimizing the possible adverse impacts on their development in a manner that protects the poor and the affected communities

❖ GOAL 13

Take urgent action to combat climate change and its impacts*

** Acknowledging that the United Nations Framework Convention on Climate Change is the primary international, intergovernmental forum for negotiating the global response to climate change.*

13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries

13.2 Integrate climate change measures into national policies, strategies and planning

13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning

13.a Implement the commitment undertaken by developed-country parties to the United Nations

Framework Convention on Climate Change to a goal of mobilizing jointly \$100 billion annually by

2020 from all sources to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation and fully operationalize the Green Climate Fund through its capitalization as soon as possible

13.b Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries, including focusing on women, youth and local and marginalized communities

❖ GOAL 14

Conserve and sustainably use the oceans, seas and marine resources for sustainable development

14.1 By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution

14.2 By 2020, sustainably manage and protect marine and coastal ecosystems to avoid significant adverse impacts, including by strengthening their resilience, and take action for their restoration in order to achieve healthy and productive oceans

14.3 Minimize and address the impacts of ocean acidification, including through enhanced scientific cooperation at all levels

14.4 By 2020, effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices and implement science-based management plans, in order to restore fish stocks in the shortest time feasible, at least to levels that can produce maximum sustainable yield as determined by their biological characteristics

14.5 By 2020, conserve at least 10 per cent of coastal and marine areas, consistent with national and international law and based on the best available scientific information

14.6 By 2020, prohibit certain forms of fisheries subsidies which contribute to overcapacity and overfishing, eliminate subsidies that contribute to illegal, unreported and unregulated fishing and refrain from introducing new such subsidies, recognizing that appropriate and effective special and differential treatment for developing and least developed countries should be an integral part of the World Trade Organization fisheries subsidies negotiation (1)

14.7 By 2030, increase the economic benefits to small island developing States and least developed countries from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture and tourism

14.a Increase scientific knowledge, develop research capacity and transfer marine technology, taking into account the Intergovernmental Oceanographic Commission Criteria and Guidelines on the Transfer of Marine Technology, in order to improve ocean health and to enhance the contribution of marine biodiversity to the development of developing countries, in particular small island developing States and least developed countries

14.b Provide access for small-scale artisanal fishers to marine resources and markets

(1) Taking into account ongoing World Trade Organization negotiations, the Doha Development Agenda and the Hong Kong ministerial mandate.

14.c Ensure the full implementation of international law, as reflected in the United Nations Convention on the Law of the Sea for States parties thereto, including, where applicable, existing regional and international regimes for the conservation and sustainable use of oceans and their resources by their parties

❖ GOAL 15

Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

15.1 By 2020, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems and their services, in particular forests, wetlands, mountains and drylands, in line with obligations under international agreements

15.2 By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and increase afforestation and reforestation by [x] per cent globally

15.3 By 2020, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land-degradation-neutral world

15.4 By 2030, ensure the conservation of mountain ecosystems, including their biodiversity, in order to enhance their capacity to provide benefits that are essential for sustainable development

15.5 Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species

15.6 Ensure fair and equitable sharing of the benefits arising from the utilization of genetic resources and promote appropriate access to such resources

15.7 Take urgent action to end poaching and trafficking of protected species of flora and fauna and address both demand and supply of illegal wildlife products

15.8 By 2020, introduce measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems and control or eradicate the priority species

15.9 By 2020, integrate ecosystem and biodiversity values into national and local planning, development processes, poverty reduction strategies and accounts

15.a Mobilize and significantly increase financial resources from all sources to conserve and sustainably use biodiversity and ecosystems

15.b Mobilize significant resources from all sources and at all levels to finance sustainable forest management and provide adequate incentives to developing countries to advance such management, including for conservation and reforestation

15.c Enhance global support for efforts to combat poaching and trafficking of protected species, including by increasing the capacity of local communities to pursue sustainable livelihood opportunities

❖ GOAL 16

Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

16.1 Significantly reduce all forms of violence and related death rates everywhere

16.2 End abuse, exploitation, trafficking and all forms of violence against and torture of children

16.3 Promote the rule of law at the national and international levels and ensure equal access to justice for all

16.4 By 2030, significantly reduce illicit financial and arms flows, strengthen the recovery and return of stolen assets and combat all forms of organized crime

16.5 Substantially reduce corruption and bribery in all their forms

16.6 Develop effective, accountable and transparent institutions at all levels

16.7 Ensure responsive, inclusive, participatory and representative decision-making at all levels

16.8 Broaden and strengthen the participation of developing countries in the institutions of global governance

16.9 By 2030, provide legal identity for all, including birth registration

16.10 Ensure public access to information and protect fundamental freedoms, in accordance with national legislation and international agreements

16.a Strengthen relevant national institutions, including through international cooperation, for building capacity at all levels, in particular in developing countries, to prevent violence and combat terrorism and crime

16.b Promote and enforce non-discriminatory laws and policies for sustainable development

❖ GOAL 17

Strengthen the means of implementation and revitalize the global partnership for sustainable development

Finance

17.1 Strengthen domestic resource mobilization, including through inter-

national support to developing countries, to improve domestic capacity for tax and other revenue collection

17.2 Developed countries to implement fully their official development assistance commitments, including to provide 0.7 per cent of gross national income in official development assistance to developing countries, of which 0.15 to 0.20 per cent should be provided to least developed countries

17.3 Mobilize additional financial resources for developing countries from multiple sources

17.4 Assist developing countries in attaining long-term debt sustainability through coordinated policies aimed at fostering debt financing, debt relief and debt restructuring, as appropriate, and address the external debt of highly indebted poor countries to reduce debt distress

17.5 Adopt and implement investment promotion regimes for least developed countries

Technology

17.6 Enhance North-South, South-South and triangular regional and international cooperation on and access to science, technology and innovation and enhance knowledge sharing on mutually agreed terms, including through improved coordination among existing mechanisms, in particular at the United Nations level, and through a global technology facilitation mechanism when agreed upon

17.7 Promote the development, transfer, dissemination and diffusion of environmentally sound technologies to developing countries on favourable terms, including on concessional and preferential terms, as mutually agreed

17.8 Fully operationalize the technology bank and science, technology and innovation capacity-building mechanism for least developed countries by 2017 and enhance the use of enabling technology, in particular information and communications technology

Capacity-building

17.9 Enhance international support for implementing effective and targeted capacity-building in developing countries to support national plans to implement all the sustainable development goals, including through North-South, South-South and triangular cooperation

Trade

17.10 Promote a universal, rules-based, open, non-discriminatory and equitable multilateral trading system under the World Trade Organization, including through the conclusion of negotiations under its Doha Development Agenda

17.11 Significantly increase the exports of developing countries, in particular with a view to doubling the least developed countries' share of global exports by 2020

17.12 Realize timely implementation of duty-free and quota-free market access on a lasting basis for all least developed countries, consistent with World Trade Organization decisions, including by ensuring that preferential rules of origin applicable to imports from least developed countries are transparent and simple, and contribute to facilitating market access

Systematic issues

Policy and institutional coherence

17.13 Enhance global macroeconomic stability, including through policy coordination and policy coherence

17.14 Enhance policy coherence for sustainable development

17.15 Respect each country's policy space and leadership to establish and implement policies for poverty eradication and sustainable development

Multi-stakeholder partnerships

17.16 Enhance the global partnership for sustainable development, complemented by multistakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the sustainable development goals in all countries, in particular developing countries

17.17 Encourage and promote effective public, public-private and civil society partnerships, building on the experience and resourcing strategies of partnerships

Data, monitoring and accountability

17.18 By 2020, enhance capacity-building support to developing countries, including for least developed countries and small island developing States, to increase significantly the availability of high-quality, timely and reliable data disaggregated by income, gender, age, race, ethnicity, migratory status, disability, geographic location and other characteristics relevant in national contexts

17.19 By 2030, build on existing initiatives to develop measurements of progress on sustainable development that complement gross domestic product, and support statistical capacity-building in developing countries

available at <http://undocs.org/A/68/970>

Countries' Experiences



Thailand's Experiences

***Nutrition and Health Development among Children and Youth
in Border Patrol Police Schools
Initiated by Her Royal Highness Princess Maha Chakri Sirindhorn***

Border Patrol Police Bureau

❖ **Background & History**

Border Patrol Police Schools (or BPP Schools) are schools that provide basic education to children and youth in rural areas, far away from telecommunication systems. The schools are under the supervision of the Royal Thai Police. The first Border Patrol Police School was established in 1956 at Ban Don Mahawan, Chiang Khong District, Chiang Rai Province. At the time, the area was remote. Most people living in the area were hill tribe people who only spoke their native language and could not speak Thai. The Ministry of Education was not able to provide formal education in that area due to the limitation of the staff and budget and the fact the area was very remote. Therefore, the border patrol police started to teach Thai language and Mathematics to the children. The students could then speak, read, and write in Thai. These skills allowed the children to communicate and trade with the people outside their community.

Initially, there were no buildings. So the classes were taught under the trees, under the leaders' houses, or inside temples. Later, people had donated land and necessary tools to build school buildings. In addition, people donated books and teaching materials for class use. The border patrol police formally placed teachers at the schools.

Eventually, the government realized that the setting up of the Border Patrol Police Schools is beneficial. Therefore, the government has expanded the program to other similar areas. As of now, there are 747 Border Patrol Police Schools. Of these, 482 schools were transferred to be under the Ministry of Education's supervision, 8 schools were transferred to be under the local government's supervision, and 53 schools were closed down. Currently, there are 196 Border Patrol Police Schools, located in 40 provinces, which are under the supervision of the Royal Thai Police.

❖ Context of the Communities

Thailand has 4,863-km borders with neighboring countries. Of these, 1,754 km is a border with Laos, 803 km is a border with Malaysia, and 1,800 km is a border with Myanmar. The areas near the borders are mountains and woods that are far from transportation. The people living in the areas are of various (more than ten) ethnic groups such as Thai, Karen, Hmong, Yao, Muser, Mon, etc. Most people are poor. They work as farmers or work for hire. Unlike people from other parts of the country, they lack opportunity to receive basic services from the government such as education and public health systems.

❖ School's Philosophy and Missions

The core philosophy of Border Patrol Police Schools is '*Creating Wisdom, Developing Quality of Life, Establishing Stability*'.

The missions of the Border Patrol Police Schools are (i) to establish the national security, (ii) to provide basic education to children and people near the border areas and (iii) to offer good quality of life for children and people in areas, in accordance with HRH Princess Maha Chakri Sirindhorn's initiative.

❖ Enrollment

During the academic year 2014, Border Patrol Police Schools enrolled 6,504 kindergarten students, 16,688 primary-level students (1st grade to 6th grade), and 916 secondary-level students (7th grade to 12th grade). The details are as follows:

Area	School	No. of Student				BPP Teacher	Civilian Teacher	Service Area	
		Pre- Primary	Primary	Secondary	Total			Community	Population
Central	43	1,699	4,412	584	6,695	287	136	128	74,291
North Eastern	45	1,123	3,197	-	4,320	291	34	129	58,793
Northern	67	2,036	5,234	332	7,602	339	169	206	60,962
Southern	41	1,646	3,845	-	5,491	312	78	152	97,820
Total	196	6,504	16,688	916	24,108	1,229	417	615	291,866

❖ Administration

Border Patrol Police Schools are under the supervision of Superintendent Border Patrol Police Area and Border Patrol Police Bureau. Each Border Patrol Police School has its own educational committee, which consists of a principal and representatives from the villages. The committee will support the school in terms of basic education and other school development activities.

In total, there are 1,229 border patrol police teachers and 417 civilian teachers. (Approximately there are 7 border patrol police teachers and 2 civilian teachers at each school.)

❖ **Providing Education**

Out of the 196 schools, 192 schools provide only primary education, 2 schools provide only secondary education, and the other 2 schools provide both primary and secondary education using the Ministry of Education's Basic Education Core Curriculum B.E. 2551 (2008). The curriculum includes eight learning subject areas as follows: (i) Thai Language, (ii) Mathematics, (iii) Science, (iv) Social Studies, (v) Religion and Culture, (vi) Health and Physical Education, (vii) Arts, and (viii) Occupation and Technology and Foreign Languages.

❖ **Her Royal Highness Princess Maha Chakri Sirindhorn's Initiative**

In order to help the children to achieve their learning goals and better quality of life, Border Patrol Police Schools have undertaken development activities in accordance with HRH Princess Maha Chakri Sirindhorn's Initiative since 1980. These development activities have been carried out as parts of school curriculum (by integrating in eight learning areas), as additional courses, or as learner development activities.

HRH Princess Maha Chakri Sirindhorn's Initiative is to enhance children's and youth's potential in a balanced manner. So that they can become productive members of their communities and the country. Children are to acquire the academic knowledge necessary for their lives and for further learning. They are expected to have a sense of ethics and morality, being honest with themselves and others. They are expected to be responsible for their duties and are conscious of public benefit. They should also develop vocational skills, creativity and positive attitudes towards work. Finally they should be able to take good care of their health.

HRH Princess Maha Chakri Sirindhorn suggested using a child-centered education principle as a tool for development. Children would learn by doing. Such approach, supported by the community, has been developed by the teachers at the schools. Community participation is also a key. Parents and other community members are encouraged to participate in school activities, in which the knowledge is shared.

To promote better nutrition and health of students, the schools used the Fourth Development Plan for Children and Youth in Remote Areas (2007-2016) as guidance. The details of the development activities and the results are as follows:

1. School Lunch Services

Following HRH Princess Maha Chakri Sirindhorn's initiative, the school provides nutritious, clean, and safe lunch, free of charge to every child on a daily basis. The meals are later supported by the government's School Lunch Fund Project. The Project offers 20 baht (62 cents) per lunch, per school day, for each child (kindergarten to 6th grade).

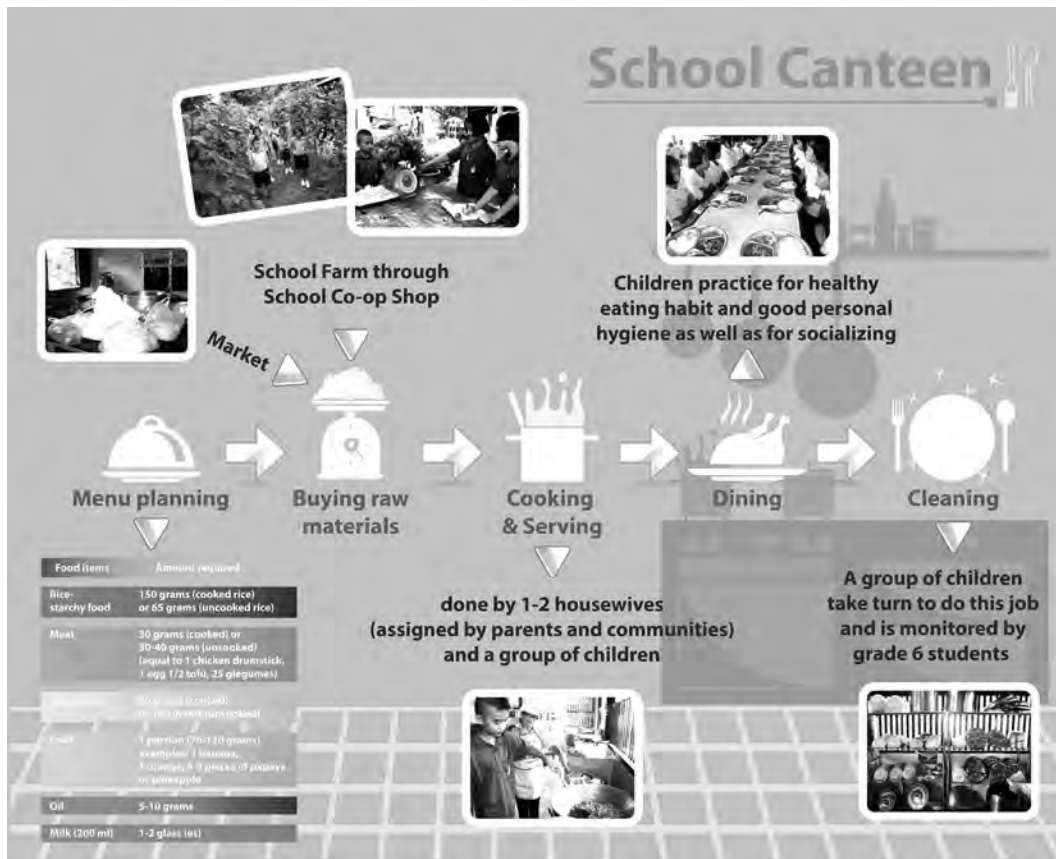
According to HRH's Initiative, school lunches are prepared using produce from school farm. Thus, children also learn how to do farming.

I want to give seeds and agricultural tools to the pupils and encourage them to participate in agricultural work, in a challenging way. Meals are prepared from their agricultural products. This is an alternative way to get food. The by-products are knowledge and skills in agriculture and nutrition, which can be used to generate income in the future.

*H.R.H. Princess Maha Chakri Sirindhorn
Teacher's Training in Agriculture for School Lunch Project
Narathiwat, Thailand, September 26, 1981.*

In managing school lunch services, two teachers are designated to take responsibility with the involvement of the communities and the children. Each day, cooked rice, one side dish, and one dessert or fruit are served as lunch.

- Teachers plan the menu by coordinating with the school's agricultural teachers to calculate the amount of raw materials needed. The food-based menu approach has been used to achieve the nutritional quality. Most of the raw materials can be purchased from the school's farm through the school's co-op shop.
- Parents and the communities are responsible for assigning 1-2 housewives to help the school.
- Children will take turn to help prepare meals and serve then under the supervision of the teacher.



2. School Milk Services

Every school day, each child will receive 7 baht (22 cents) from the School Milk Program. The school serves 200 cc of milk (prepared from powder milk) in the morning or afternoon.

3. Nutrition Monitoring Program

Weights and heights of children are measured twice a year by a trained health teacher. Then, the nutritional status of each child is interpreted using the Thai Child Growth Standards. Special cares are provided for children who are malnourished. For example, during lunchtime, one additional egg and an additional glass of milk will be served to the malnourished children.

4. Promoting Physical Activity

Physical activities are taught in the curriculum. In addition, extra physical activities are promoted as follows:

- Daily short exercise is done in the morning assembly.

- The school reserves the area in front of the school building as a playground. Children can have physical activity games during lunch break or afternoon break.

- Students can participate in school agricultural activities to stay active.
- Sometimes, physical activities are used to teach academic contents.
- Student can walk or bike to school every day.
- Physical fitness test is done twice a year.

5. Personal Hygiene Practices

Children are taught to practice healthy habits in the school. The school provides clean water and sanitation facilities as follows:

- Drinking water (with iodine solution prepared daily).
- Hand-washing facilities.
- Toilets, separated for boys and girls.
- School kitchen and canteen.
- Classrooms.
- Garbage cans.

Hygiene education is taught both in classrooms and outside classrooms (such as in the morning assembly, in the school kitchen, during lunchtime, etc.) Children can practice and develop their hygienic habits every day.

- Hand-washing after using the toilets.
- Hand-washing before lunch.
- Tooth-brushing after lunch.
- Maintaining clean classrooms and school environment.
- Collecting garbage.
- Keeping body and clothing clean.

6. Health Services

Health services are provided for children, school staff, and people in the communities by a school health teacher. Working hours are from 8.00 am to 4.00 pm. The details of the services provided are:

- First-aid service.
- Vision screening (once a year).
- Health and oral health examination (collaborating with nearby hospital).
- Weekly routine screening for cleanliness of body and clothing.

7. School Agriculture or School Farm

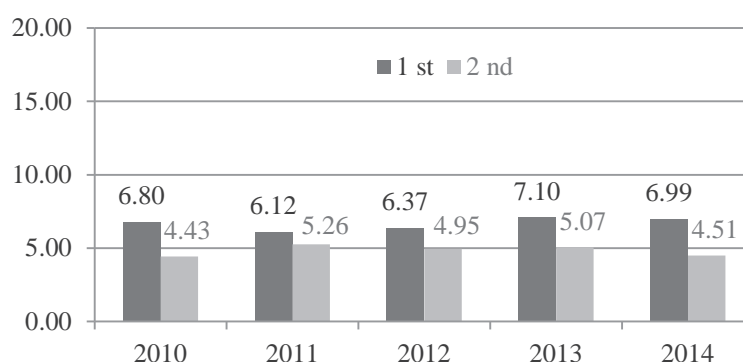
The school set up a small-scaled integrated farm. Rice, vegetables, fruits, and mushrooms can be grown. Fish and poultry are farmed. In addition, there are spaces for compost/manure/biofertilizers practices.

❖ Outcomes

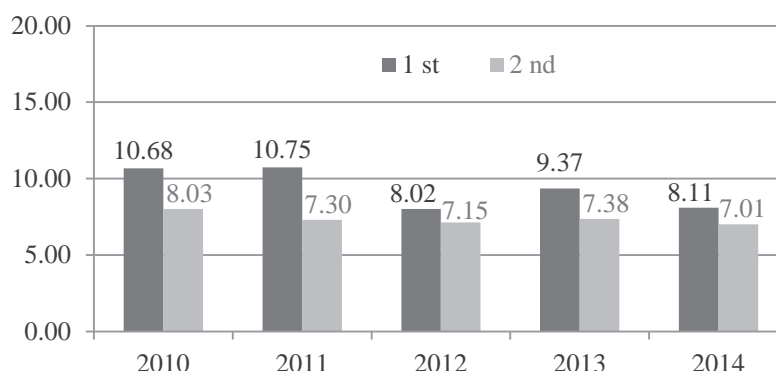
- **Nutritional Status**

The schools are now facing the double burdens of malnutrition: (i) under-nutrition and (ii) over-nutrition. During 2010-2014, the malnutrition problem has slightly increased but the underweight problem has decreased for pre-primary students. Stunting and wasting have slightly decreased but the obesity problem has increased for primary students. Overall nutritional status of pre-primary students and primary students are shown below.

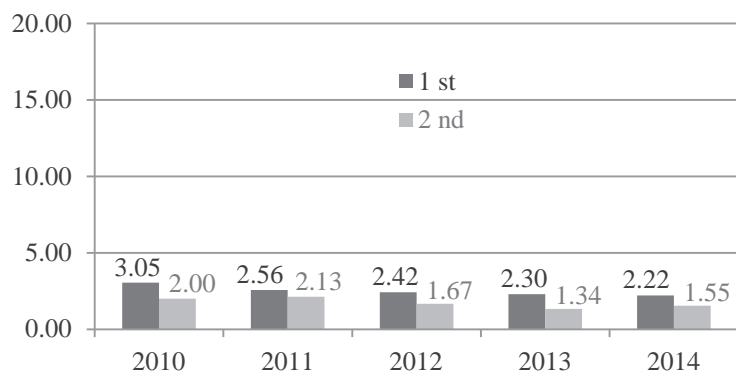
Prevalence rate of underweight (weight for age) of pre-primary students



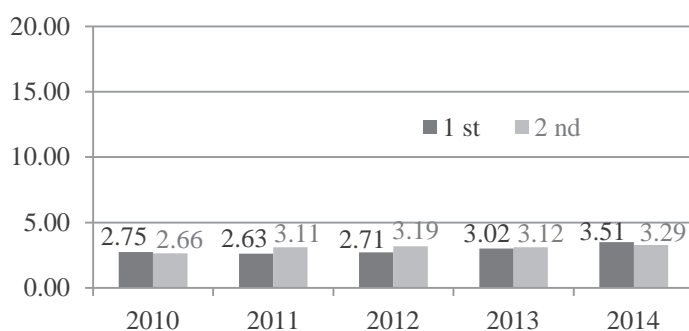
Prevalence rate of stunting (height for age) of primary students



Prevalence rate of wasting (weight for height) of primary students



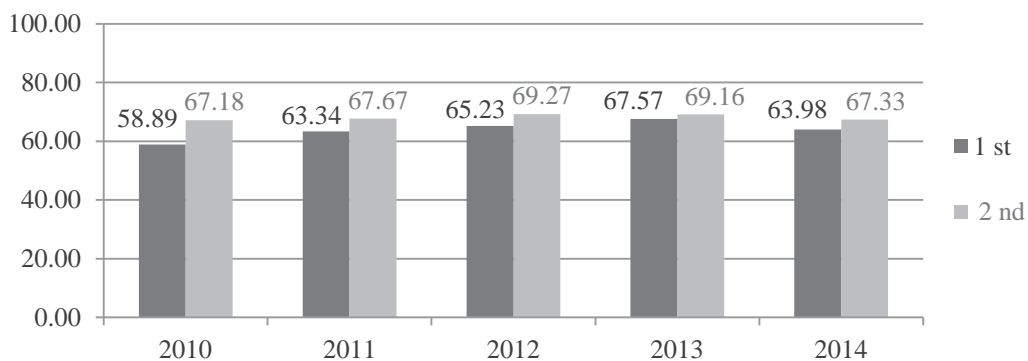
Prevalence rate of obesity (weight for height) of primary students



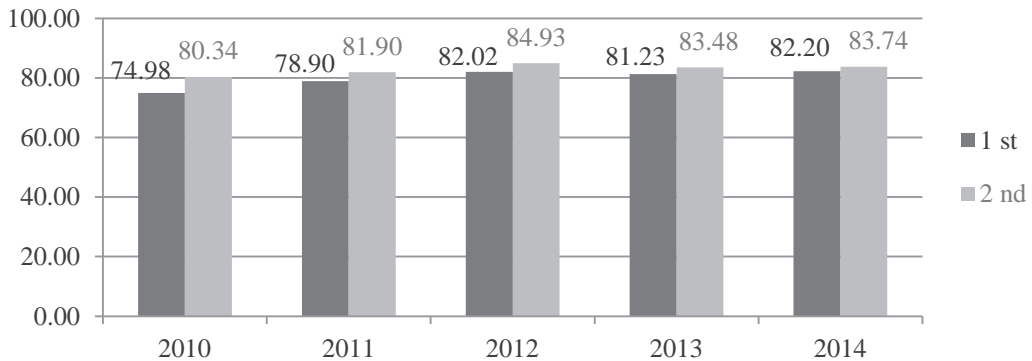
- Physical fitness test**

Most of children's physical fitness results are in acceptable ranges.

Percentage of pre-primary students passed the physical fitness test



Percentage of primary students passed the physical fitness test



- **Iodine Deficiency Disorders**

The deficiency can be measured using the total goiter rate in schoolchildren. This is currently not a problem.

- **Healthy Eating Habits and Personal Hygiene Practices**

Lunchtime provides an opportunity for children to practice healthy eating habits and good personal hygiene. At the end of the school year, 3rd graders and 6th graders were evaluated in terms of their healthy eating habits and hygienic habits. The results are shown below.

Percentages of primary students having proper health behaviors

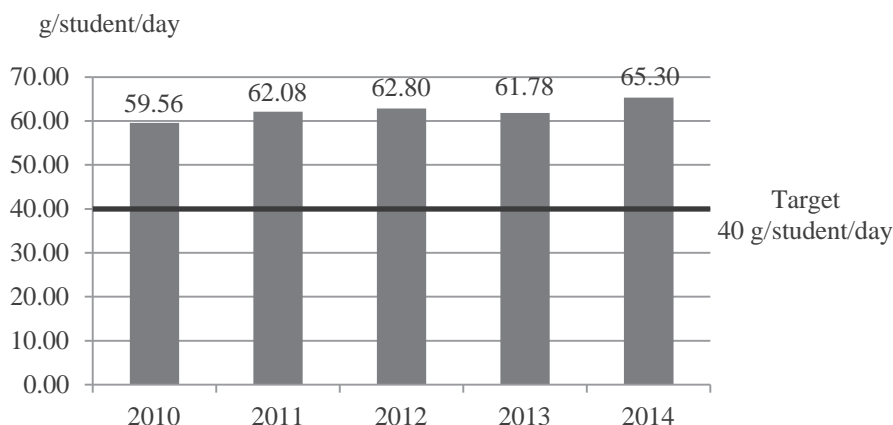
Year	% of Children Having Healthy Eating Habits		% of Children Having Hygienic Habits	
	Grade 3	Grade 6	Grade 3	Grade 6
2010	90.31	94.77	80.48	83.17
2011	91.79	95.65	81.60	84.41
2012	93.83	96.28	84.89	86.33
2013	93.77	97.11	87.22	89.17
2014	95.58	97.95	87.92	89.57

- **School Agriculture Products**

The production from the school's farm supplies materials for school's lunch services. There are four groups of agricultural production, namely, meat, legumes, vegetables and fruits. Most of Border Patrol Police Schools can produce most of the food materials (except legumes) enough for all students for every school day in a year (200 days).

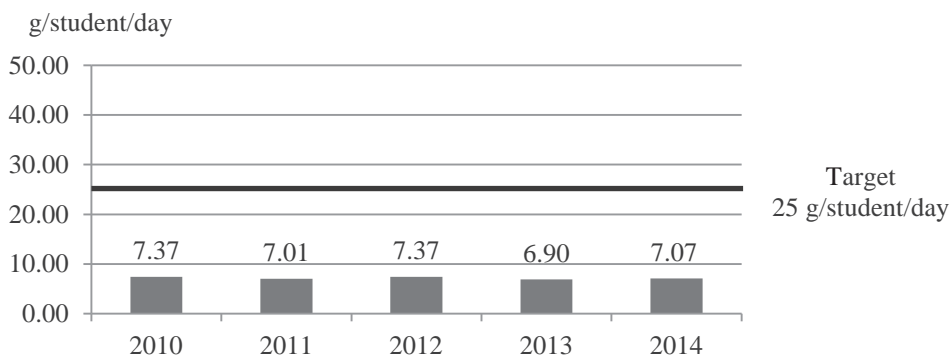
The target for meat production is 40g/student/day. From 2010 to 2014, meat production in schools has increased. Most of the production are eggs, native chickens, catfish, tilapias and frogs. The production of meat is shown below.

Agricultural Production: Meat



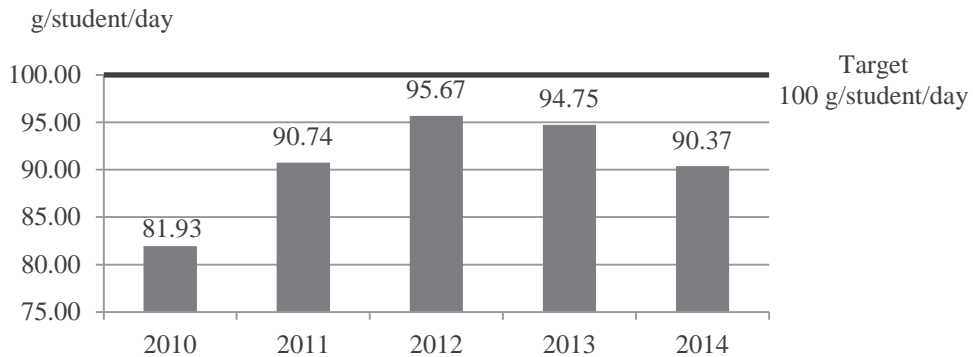
The target for legume production is 25g/student/day. From 2010 to 2014, legume production was stable due to lack of suitable land for planting. Most of the production soybean, mung bean, peanuts and black-eyed peas. The production of legumes is shown below.

Agricultural Production: Legumes



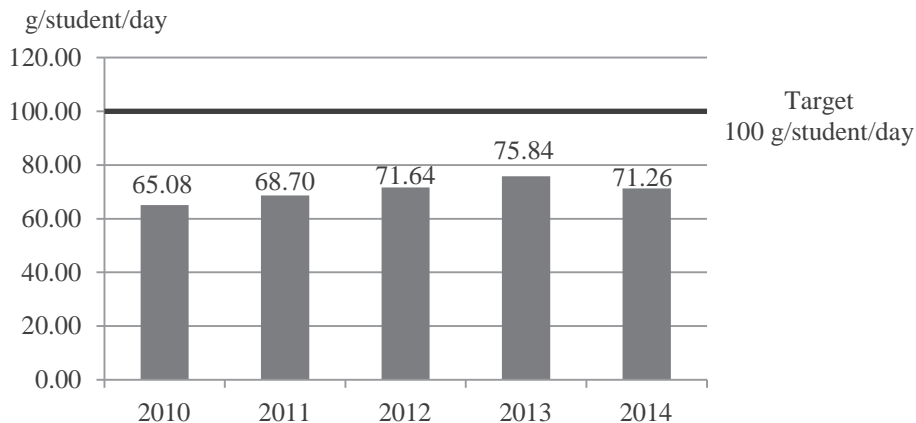
The target for vegetable production is 100g/student/day. From 2010 to 2014, vegetable production was almost enough for all students. Most of the production seasonal vegetables such as Chinese cabbages, Chinese kales, yard-long beans, morning glories, local vegetables, and mushrooms. The production of vegetables is shown below.

Agricultural Production: Vegetables



The target for fruit production is 100 g/student/day. From 2010 to 2014, fruit production was almost enough for all students. Most of the production are bananas, papayas, pineapples and seasonal fruits such as mangoes, longans, and jackfruits. The production of fruit is shown below.

Agricultural Production: Fruit



- **Knowledge and Skills in Agriculture of Students**

School agriculture provides an opportunity for children to learn and practice their agricultural knowledge and skills. At the end of the school year, 3rd graders and 6th graders were evaluated. The results are shown below.

*Percentages of primary students having agriculture knowledge
and skill at good level*

Year	% of Children Having Agriculture Knowledge at Good Level		% of Children Having Agriculture Skills at Good Level	
	Grade 3	Grade 6	Grade 3	Grade 6
2010	74.61	88.50	66.12	83.70
2011	75.81	87.69	70.03	84.55
2012	78.61	88.42	72.73	85.72
2013	83.85	92.89	76.79	88.89
2014	84.89	93.28	74.52	88.29

The school kitchen benefits from being able to obtain fresh, nourishing and safe ingredients for school lunches. Besides, the surplus agricultural products are either preserved or sold to the communities. Income generated from these products can be put in a fund used to run the operation. Children also learn how to keep an account and how to run a small business according to the principles of cooperatives. In addition, their basic academic skills such as Mathematics and language, as well as democratic ideology have been strengthened.

❖ Conclusion

Border Patrol Police Schools undertaken HRH Princess Maha Chakri Sirindhorn's program have shown a great progress. The schools have helped improve development the living standards of the students in various aspects such as nutrition, health, education, and career skills. The program gave the students an opportunity to obtain adequate education like people living in other parts of the country.

***Environmental Conservation:
Learning to Serve...for the Well-being of Society***

*Mr. Somsak Wutisad and Mrs. Uthaiwan Wutisad
Ban Mae Ra Moeng School,
Office of Basic Education*

❖ Background

The problem of the degradation of natural resources and the environment is intensifying at present. It affects the health and well-being of human life as its impacts include natural hazards and disasters. In the rainy season, heavy rain is causing flash floods, there is damage to homes and properties, landslides that cause human injury, loss of life, and crop destruction. Droughts always directly affect livelihoods. Moreover, the ecological imbalance and biodiversity declines have become major issues of society. All of these are problems that we must all tackle together.

Her Royal Highness Princess Maha Chakri Sirindhorn has been concerned with the critical need to conserve natural resources and the environment, restoration, and reforestation. The target areas of Her Royal Highness's initiatives are mostly located in forests, watersheds, wetlands and national parks. If children and youth are empowered, they may become change agents who lead the efficient use of community resources. This is fundamental to a sustainable society. Although all schools are aware of environmental education, they still lack critical thinking processes and problem-solving skills. This will enable students to participate in decision making processes that relate to their lives and their communities.

Since 2005, Banmaeramoeng School has followed Her Royal Highness's initiative, developing children and youth continuously. The work focuses on natural resources and environmental conservation. This due to the location of the school is in a national park in Tak Province, in the highlands along the border between Thailand and Myanmar. The school has served hill tribe farming communities. Therefore they have to cut trees and burn down acres of forest to prepare areas for cultivation. With the use of chemical fertilizers and chemical pesticides causing natural resource depletion, water sources have been further reduced. Therefore, in cooperation with the relevant authorities, Banmaeramoeng School has focused on learning about natural resource conservation and environmental protection for students from Grades 1 to 12, to raise awareness by children, youth, and the communities on contributing to the natural resource and environmental conservation activities.

❖ Objectives

1. To implement Her Royal Highness's initiative with a concrete examples and to fit within the local contexts.
2. To gain knowledge in the current situation of environmental issues in the school and the community, and the importance of natural resources and the environment to human life.
3. To raise awareness and values about the natural resources and the environment among youths.
4. To provide a hands-on experience on environmental education through participation in natural resource and environmental conservation activities.
5. To involve the communities in teaching-learning of environmental education in order to apply their knowledge and skills to implement environmental conservation activities.

❖ Implementation process

- 1. Community Studies:** Collect data in school and communities to identify environmental and social issues

Community-based environmental education is a basic principle of meaningful learning which is learning by doing on the learner's related local context and links to universal principles and ideas "think globally, act locally". The basic information of the school and the community is needed for developing and designing learning activities. It corresponds to the National Basic Education Core Curriculum.

1.1 Teachers, students, and community leaders work together on planning to explore the communities and collect data.

1.2 Students explore the schools and communities and collect data by interviewing members of communities and gathering of relevant documents that will be presented in charts and diagrams. Then, the data analysis is used to identify the environmental issues in schools and communities.

2. School Improvement Plan Development (SIP)

Environmental education is an important goal, in terms of school administration and the whole school management, as well as EE school curriculum and teaching-learning process for each grade level. The SIP's assessment is annually conducted by all stakeholders in order to bring about continuous improvement in next fiscal year.

3. Designing the Integrated Unit Plan of Environmental Education (EE)

3.1 Development of the framework of the EE Integrated Unit Plan on the

theme “The Natural Resources and Environmental Conservation” and teachers’ guidelines on EE lesson plans and activities for students in Grade 1 to Grade 12. It is underpinned by the National Basic Education Core Curriculum. Despite the fact that environmental education is not rendered as a specific subject area, it is prescribed as learning standards in Science Social Studies, Religion and Culture, and Career and Technology Subject areas. These EE integrated unit plans will be integrated into the lesson plans of each grade level and a proper learning time allotment will be determined.

3.2 Development of the learning materials and worksheets, identification of the community’s resources as learning sites, and engagement of instructors and resource persons in local wisdom.

3.3 The evaluation criteria are consistent with the National Basic Education Core Curriculum.

4. Teaching-learning activities

4.1 Curricular teaching-learning activities

The activity-based learning and integrated thematic unit plan, “Natural Resource and Environmental Conservation” for students in Grade 1 to Grade 12 provides significant information on the current situation in environment and EE. It emphasizes learning through individual and group activities. The plan also further develops the project-based learning approach which focuses on process-oriented critical thinking, problem-based learning and inquiry-based approaches, as well as promoting child-centred teaching- learning methods, using the community as a resource for learning that links to the environmental issues of schools and communities. The strategy **“7-Steps learning approach”** will be introduced into classrooms ranging from Grade 1-12, which consists of seven steps in a case study approach as follows:

- 1) students collect information from the community;
- 2) students choose a problem to study in depth;
- 3) students present findings to stakeholders;
- 4) community members and students consider various alternatives and choose one;
- 5) community members plan a project along with teachers and student input;
- 6) villagers implement the project with teacher and student involvement; and
- 7) students work with teachers and community members in evaluating the outcomes of the project and report their findings to the community.

Students will participate in hands-on experiences through various activities such as tree planting for various purposes.

4.2 Extracurricular activities

“Learner Development Activities” is described in the National Basic Education Core Curriculum as aiming to allow learners to develop themselves to their highest potential, thus becoming well-rounded and fully developed in all respects physical, intellectual, emotional and social; inculcating morality, ethics and self-discipline; creating and strengthening the spirit of philanthropy for social benefit; the ability for self-management and enjoyment of a happy life as part of a community. By applying all the knowledge of each subject area and putting into actual practice and engaging in hands-on experience in a wide range of national resource and environment conservation activities, students will value a good quality of life and cultivate desirable characteristics. Examples of such activities include:

- Establishment of the student club “Good environment... Well-being lifestyle” focuses on voluntary environmental development. There are activities to protect the environment both in schools and communities. It is a participatory learning and working with the community, such as planting trees and flowers, building water-softening weirs or check dams, natural water supplies improvement, making firebreaks, maintaining and preserving the community’s environment, etc.
- Organizing academic competitions, it builds on the students’ potential and capacities in the aspects of creative thinking, presentation and expression, teamwork, in-depth learning, and the development of multiple intelligences such as; drawing and painting, plays, musical performance, poems, slogans, and essay contests, designing a series of recycled products, project based learning competitions, etc.
- Conducting the exhibition on knowledge and understanding of learning activities of Conservation of Natural Resources and Environment, and presenting the student’s learning achievement to parents, communities and the public.

4.3 Creating the school and community atmosphere

- Students share responsibility and duty to maintain the school grounds, create a green living school environment by tree and flower planting, keeping the school grounds well ordered, clean, safe, and pollution free.
- Promotion of the student’s livelihood skills activities which include growing garden vegetables and raising animals for use in school meals and earning income during the school year.
- The school climate consists of the interpersonal relations between teachers and students, and among students themselves, as well as social interactions, in the direction of equity and equality, mutual respect and admiration, warmth and friendliness, and support and enhancement of learning achievement. It is just as the students and school personnel treat the natural resources and environment.

4.4 Community activities

“Community Activities on National Resources and Environmental Conservation” is aimed at raising awareness of the contributions and participation

of all EE activities. It is also to establish norms and values of the community of practice. As a consequence it demonstrates good practice and becomes the model for youths.

- EE activity “Mother plans, the child takes care” is to promote a family relationship.
- Improving soil quality by using compost and bio-fermentation, a campaign to reduce the use of chemicals in crops. This is according to the philosophy of sufficiency economy.
- Restoring the environment of the community, including tree planting along both sides of roads and maintaining the green living in communities.
- Community reforestation for the conservation of native plants and animals, preservation of the forests in the watershed areas, and sustainable forest management and utilization.
- Building water-softening weirs or check dams in order to reduce soil erosion and increase soil moisture. This preserves sources of water for both people and wildlife.
- Construct a firebreak in the dry season for protection against wildfire.

5. Developing networks and collaboration with the other sectors

It aims to raise awareness on natural resource and environmental protection, together with other agencies such as national parks and local administrative organizations, the Highland Research and Development Institute (public organization), Watershed Conservation and Management Office, etc. These agencies provide expertise in specific areas and will provide technical support to enrich the knowledge of students and communities.

❖ Results and Impacts

Children and youth

1. Children and youth have adopted Her Royal Highness’s initiative, particularly, natural resource and environmental conservation in daily life, both in the school and community.
2. Learning potential with communities are enriched and enhanced, learning and living with happiness in their communities.
3. Children and youth gain hands-on experience on environmental education through participation in the natural resource and environmental conservation activities in cooperation with other agencies.
4. Children and youth are aware of the value of natural resources and environmental conservation.

Communities

1. The communities have become a laboratory for teaching-learning in

environmental education. The villagers have become instructors and resources persons. At the same time, villagers are also able to apply knowledge and skills to implement the natural resource and environmental conservation activities, manage their community surroundings, and utilize sufficiency resources, etc.

2. Villagers involved in a variety of the natural resources and environmental management and conservation activities such as building water-softening weirs or checking dams, constructing firebreaks, maintaining and preserving the community's environment, etc.

3. The relationship between school and community involves two-way cooperation in order to support quality education and also transfer modern knowledge to the community.

❖ Problems and obstacles

Environmental issues are caused by many factors and linked to all dimensions of society; for instance, the villagers who are living in nearby forests have to cut trees and burn down acres of forest to prepare planting areas. It is because they are poor and agriculture is their occupation. The cultivation of land and farming are done to make a living, resulting in the destruction of natural resources and the environment. It is unavoidable. Thus the solution is to really understand environmental problems and their causes and effects in order to make effective solutions. It requires cooperation from many stakeholders.

❖ Recommendations

1. There should be government authority and private sector promoting a variety of alternative occupations which replace the current slash-and-burn agricultural practices.

2. The relevant authorities in the field of environmental management, such as the Watershed Conservation and Management Office and the National Parks should provide knowledge and understanding to the communities regularly.

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Educational Equality of Children with Special Needs The Potential Development of Children with intellectual Disabilities

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The importance of addressing the problems for children with special needs and intellectual disabilities.

Children with special needs and intellectual disabilities require designed care and support in various areas of their learning, social, and life skills, to develop to their full potential.

Children with special needs are divided into three groups : children with special abilities, children with disabilities, and poor and deprived children. The Ministry of Education has classified children with disabilities into nine categories, which are:

1. Intellectual disabilities
2. Hearing disabilities
3. Vision disabilities
4. Physical disabilities
5. Speech disabilities.
6. Emotional and behavioral disabilities.
7. Learning disabilities.
8. Autism (Including development disabilities around the other side - PDDs)
9. Multiple disabilities.

Children with intellectual disabilities generally suffer with brain status stop development, a type of development that is not perfect. These children have lower intelligence, with an Intelligence Quotient-IQ lower than 90. Likewise, they may also be physically, socially, emotionally, or developmentally disabled with limited adaptive skills. Intellectual disabilities are generally diagnosed during childhood. Schools are instrumental in identifying Children with intellectual disabilities. There are usually two identified groups of children with this type of disability. The first are children who are slow learners with an IQ level of about 70-90. They suffer from a lack of learning skills and learning disabilities, but usually can participate in regular classes part-time to full-time. The second group is considered mentally retarded with an IQ level of about 50-70. These children can study in regular and special classes and also are able to train and work easily.

Children with intellectual disabilities struggle to learn because of having limited language skills. They also struggle to understand abstract concepts, and thus

instruction for them should have an emphasis on the concrete concepts. Effective instruction for children with intellectual disabilities requires activities that provide a direct experience, with opportunities for them to learn and discover by themselves. Examples of this type of instruction may include agricultural and environmental activities, which encourages children to learn by interacting with nature and the environment. These activities are beneficial and can help reduce stress and encourage interaction using the five senses. Also, experiencing free play with nature is important in developing imagination and satisfying curiosity. The quality of play will develop the children in aspect of physical, sensory, emotional, intellectual and social relation (Haas1996).

Agricultural and environmental activities promote the development and learning of essential life skills through observation, practice, and the process of working together responsibly. Incorporating agricultural and environmental activities for children with intellectual disabilities allows them to work and experience the planting and harvesting process. Students who participate in these activities experience pride in their work, and develop basic skills that help them to function in daily life. Similarly, these students are more able to live happily in society.

❖ **Concepts and theories related to learning for children with intellectual disabilities.**

Jean Piaget believed that language learning is the result of intellectual ability. Children learn from interacting with the world around them. They will adjust their environment by using their native language. Language development of a child is in parallel with the ability to reason, make decisions and use logic. Children use the environment around them to create rules, a sound system, a word system, sentence system, and to make meaning of the language. In addition, children also need to practice a language with several methods.

John Dewey developed a concept of children's learning. His theory states that children can learn by action through learning from experience or the situation in accordance with the life and society where they live that is called "learning by doing."

These concepts and theories can be applied to manage learning for children with intellectual disabilities as follows:

1. Manage learning based on learning as important. Focus on the aptitude and interest with the direct experience, and to assess the ability of the individual.
2. The development of children's intellectual abilities should suit their intellectual experience and development. Children should not be forced to learn things that are not available or are difficult because they exceed their age development. Exceeding the limits of the child's ability can create negative attitudes in learning.

The experience should consider as follows:

- Create and manage an environment that is conducive to learning activities with age.
 - Children who are the same age but not the same development should not be compared with each other, and they should be allowed the freedom to learn and develop according to their ability.
 - The teacher should teach concrete concepts to help children gain understanding.
3. The teacher should have knowledge and experience, and accept the differences of participants and attend to their needs closely.
 4. The teacher should teach in a separate overview before teaching in each section.
 5. Teaching children should begin with what the children are familiar or experienced with,
 6. and then teach new concepts and associate them with the students' prior knowledge. This approach helps children absorb new information and manage their learning process as well.

❖ **Initiative related to education for children with special needs.**

“Deprived children, despite the causes of the different disadvantages, all have the basic right to equality. The study will help them if they receive an education. We help children in deprived remote areas, children in the no services education, orphans, and children with physical disabilities, even aphasic. We tried to make educational opportunities.”

*Initiated of
Her Royal Highness Princess Maha Chakri Sirindhorn, 2007*

Watsrinualthamawimol School applies the initiative of Her Royal Highness Princess Maha Chakri Sirindhorn to teach students of all levels and all ages, including the children with special needs. Every child participates in various activities of the Children and Youth Development Project for a better quality of life under the Patronage of Her Royal Highness Princess Maha Chakri Sirindhorn, to achieve continuous improvement in all aspects and programs as follow:

1. The agriculture project
2. The Lunch project
3. The student Cooperative project
4. The sport project

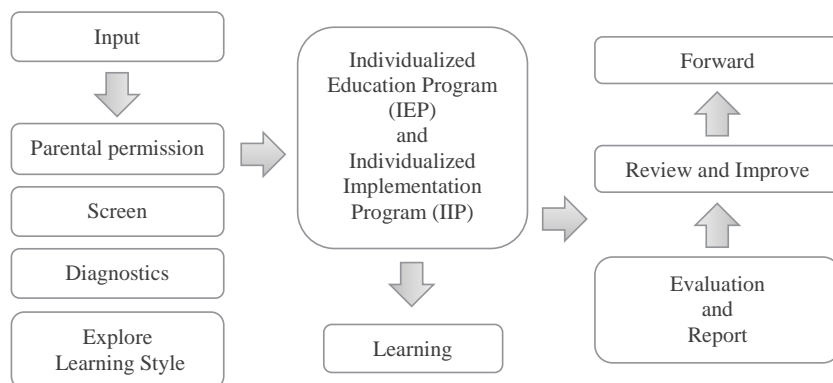
Watsrinualthamawimol school management of special education since 1999 (B.E.2542) has joined with mainstreaming in education of the Bangkok project. Children with special needs classes are integrated in regular classes with normal children according to the policy of Bangkok. Currently, the school has managed education in two groups, mainstreaming and integration. In one study, there are fifty-eight special education children. There are twenty-eight students in regular classes, and thirty in mainstreamed classes. Included are eight children with Learning Disabilities (LD). Six of the students learn in regular classes, and two learn in special classes. Also, there are twelve children with Autism, with four children in regular classes and eight in special education classes. The last group consists of thirty-six children with Intellectual Disabilities. In this group, there are sixteen students who learn in regular classes and twenty in special classes. Working with these students are four teachers. Three of these teachers are regular education teachers, and one teacher supports academic studies.

The School Management with Special Education maintains that, “All children have equal rights and all children can be developed.” Allowing students to participate in activities outside of the regular curriculum is appropriate, and the adjusted teaching and learning management process is implemented in accordance with the abilities of each student. Individualized Education Programs (IEP) are used to monitor and evaluate students’ learning.

The target of this program is to provide every child with special needs an education that improves their knowledge, goodness, morality, popularity and life skills. Likewise, this educational approach helps students develop a healthy mind, and prepare them to live happily in society.

❖ The development potential of children with special needs in Watsrinualthamawimol School.

Watsrinuanthamawimol School operated with the mainstreaming education of Bangkok as follows in the diagram showing the process of implementation of special education in the Watsrinualthamawimol School



❖ **The limited learning problems of children with intellectual disabilities.**

Learning and teaching with children's normal style are not enough for this group. Therefore, the school has organized activities to learn to empower children with intellectual disabilities by the agricultural and environmental activities that are called "Kin Ploen Doen Tiew" (enjoy to eat, walk to travel) and "Pattana Punya Pha Noo Plook Phak" (develop intellect, let me grow). These activities allow children to learn and to explore sources of learning about the environment and agriculture in school. Moreover, they also participate in learning activities of Children and Youth Development Project, under the Patronage of Her Royal Highness Princess Maha Chakri Sirindhorn. These projects included various environmental and agricultural activities, such as working with fish and frogs, gardening, and hydroponics. These activities encourage children to learn and protect the environment in the school. Also, they practice these skills by planting vegetables and flowers and caring for them until the harvest. The students also learn about the processing of the plants for cooking and for resale to cooperative store. The processing and earnings will be used to for necessities and for supporting the cooperative school. All of these activities are beneficial in helping the students to learn and develop knowledge and skills that they can apply to their daily lives.

❖ **How to operate agricultural and environmental activities for children with intellectual disabilities.**

The agricultural and environmental activity for children with intellectual disabilities by "Kin Ploen Doen Tiew" (enjoy to eat, walk to travel) and "Pattana Punya Pha Noo Plook Phak" (develop intellect, let me grow) procedure are as follows:

Preparation

1. Search information related to educational management for children with special needs. Research information on agricultural and environmental activities such as the policy and vision of school special education management. Implement the projects initiated by Her Royal Highness Princess Maha Chakri Sirindhorn, and use local wisdom to do so through an operating budget.
2. Define the development plan of agricultural and environmental activities for children with intellectual disabilities.
3. Meet and train teachers and personnel in agricultural and environmental activities
4. Meet with parents to encourage agricultural and environmental activities.
5. Prepare personnel to be knowledgeable about techniques, and how to adjust teaching methods, and evaluate their teaching methods for children with intellectual disabilities.
6. Prepare the teaching environment and facilities.
7. Appoint personnel and assign responsibility by executive chairman.

Operations

1. Planning: P
 - 1.1 Screen and measure the capabilities and needs of the children and group them by talent level.
 - 1.2 Develop the Individualized Education Program (IEP) to be integrated with agricultural and environmental activities.
 - 1.3 Develop the Individualized Implementation Program (IIP) integrated with agricultural and environmental activities.
 - 1.4 Prepare materials and learning resources according to the Individualized Implementation Program (IIP).
2. Doing: D
 - 2.1 Incorporate teaching and learning activities using the Individualized Education Program (IEP) and the Individualized Implementation Program (IIP).
 - 2.2 Create a schedule of activities.
3. Checking: C
 - 3.1 The special education teachers assess and evaluate the students' learning using the Individualized Education Program (IEP) and Individualized Implementation Program (IIP).
 - 3.2 Observe, check, and advise teachers on the learning reinforcement for children with special needs.
4. Action: A

The special education teachers analyze the result of learning from practices of agricultural and environmental activities. Improve instruction and activities to suit each student's potential, and to plan the development of activities in the future.

The Results Obtained by Students

1. Students know and understand principles of nature, the environment, and conservation.
2. Students gain knowledge of the planting process and how to grow vegetables, as well as the preservation of various vegetables.
3. Students gain discipline and responsibility, as well as pride in performing practical activities.
4. Students build various skills, such as in mathematics and science from their observations of the growth process of plants.
5. Students enjoy eating organic vegetables.
6. Students learn how to economize.
7. Students can apply this knowledge to grow their own vegetable at home.
8. Students gain better language development and can express their own needs by listening, speaking, reading, and writing.

Teachers

Teachers are taught a variety of methods, and to use resources that are available to them within the school, as a supplement for students to practice.

Parents

Researching parental opinions about the development of agricultural and environmental activities in the school revealed that parents are very satisfied with the cooperative and practical activities the students are engaged in.

Communities

The agricultural and environmental activities available to the students have brought knowledge of them to the publishing communities, which resulted in good health and a livable environment.

Summary

The school has organized agricultural and environmental activities to enhance and develop the learning potential of children with intellectual disabilities. By providing students with experiences of their natural surroundings and practicing the activities of “Kin Ploen Doen Tiew” (enjoy to eat , walk to travel) and “Pattana Punya Pha Noo Plook Phak” (develop intellect , let me grow), the results showed that the students had fun with learning from the sensory environment around them. This showed positive results in a child’s brain development, and helped them to analyze, synthesize, and build skills, such as discipline and responsibility. Likewise it helped them to work and live with others in an engaged and cooperative environment. They also gained knowledge of how to sustain life, and use the skills they learned in the future. In accordance with the Children and Youth Development Program initiated by Her Royal Highness, Princess Maha Chakri Sirindhorn, the program emphasizes self-reliance, and helps them to reach their full potential.

The problem and obstacles

1. Children with intellectual disabilities, especially Down Syndrome, often have health problems, such as heart disease and thyroid dysfunction. Students with these health problems were often absent, which caused interruptions in the students learning.
2. Some students can’t participate because they may have emotional and behavioral problems.

Suggestions

1. The teacher should become familiar with each student to create interaction and a positive classroom environment.
2. Allow students to participate in activities and encourage them to communicate.

3. Teacher should continually reteach and review instruction because children often forgot easily.

4. Teachers should reinforce learning with the children by encouraging and praising them when they do well.

5. Agricultural and environmental activities should be applied to other groups of children who suffer with various learning and intellectual disabilities.

❖ Appendix

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General Buddhist Scripture Schools and Youth Development as Initiated by Her Royal Highness Princess Maha Chakri Sirindhorn

National Office of Buddhism

❖ Background

The General Buddhist Scripture Schools are schools under the jurisdiction of the National Office of Buddhism. The schools are situated in the monasteries and are established by the Abbot of each monastery. Buddhist monks provide both scripture education (Dhamma study and Pali study) and general education (Thai language, Mathematics, Science, Social studies Religion and Culture, Health and Physical Education, Arts, Occupations and Technology, Foreign Languages) to boys who have finished grade 6. The General Buddhist Scripture Schools are established with the aim of producing both good religious heirs who can disseminate Buddhism and other students who choose a different path. These students either continue their education, find jobs to earn a living or serve in the government. At present, there are 414 schools across all regions of Thailand.

Monastic education offers an alternative for disadvantaged boys to pursue secondary education. Many boys are from poor families, ethnic minorities, or are orphans. Moreover, some boys have social problems so that they cannot enter other schools. With their faith and trust in Buddhism, parents send these boys to the Buddhist monks. After ordainment, these boys become novices and can study both scripture and general subjects in the General Buddhist Scripture Schools.

Providing education can cause many problems for the General Buddhist Scripture Schools. Students come from many different backgrounds. A number of the students still suffer from malnutrition, health problems and illiteracy. Additionally, many schools are situated in temples in small communities. The schools have many students because they gather the children and youth from other temples nearby. The communities cannot afford alms for all children and youth as well as other resources for school development. In addition, the budget from the government is limited. With these constraints, the schools cannot provide good nutrition and health services as well as quality education. Her Royal Highness has learned about these problems, thus, in 2004, Her Royal Highness began cooperation with the Buddhist monks aimed at improving the quality of life for the novices studying in the General Buddhist Scripture Schools.

❖ Target areas

Up to the academic year 2014, 69 General Buddhist Scripture Schools under the National Office of Buddhism, located in Nan, Phrae, Chiang Rai, Phayao, Lam-pang and Srisaket provinces have been undertaking development program initiated by Her Royal Highness. The implementation covers 8,881 novice students. The details are as follows:

Province	No. of school	No. of student	No. of Teacher
Nan	15	1,639	153
Phrae	7	958	72
Chiang Rai	21	2,930	242
Phayao	9	1,068	111
Lampang	8	993	79
Srisaket	9	1,293	98
Total	69	8,881	755

❖ Development Process

In undertaking Her Royal Highness's Initiatives, the novices are encouraged to work on development activities by themselves. In this way, novices instill knowledge, skills and attitude needed for their future through the process 'learning by doing'. The following are development activities running in the General Buddhist Scripture Schools.

1. Promoting good nutrition and good health among novices

This is aim to allow novices to acquire knowledge and develop proper eating habits and healthy personal hygiene practices. Such knowledge and practices can lead to good nutrition and good health which are the foundation for development of the full potentials of the children.

Activities include provide a nutritional and hygienic lunch and milk; promote appropriate and regular exercise; develop an efficient nutrition monitoring system; develop a school sanitation and environment favorable to good health; develop proper personal hygiene practices; provide routine health examinations; provide diagnostic services to detect intestinal worms and provide rudimentary treatment; develop learning activities to enhance healthy behavior including health education, nutrition education, sanitation and environment, suitable exercises, mental health, nutritional diseases such as protein-energy malnutrition, iodine deficiency disorders, vitamin A deficiency, iron deficiency anemia, obesity, and local communicable diseases such as intestinal worm infestation.

2. Enhancing novices' potential in academic studies and being good religious heirs

The aims are to build up capacities of teachers both Buddhist monks and non-monk teachers in managing quality teaching and learning processes so that the educational goals of the schools can be achieved.

Activities include improve teaching and learning management skills; develop libraries to reach the standard, to be a modern learning resource for novice; arrange activities to promote and develop students' reading and researching skills; develop laboratories corresponding to the curriculum; promote the use of information technology to be appropriate for the readiness of each school; support scholarships to Buddhist monk teachers to pursue higher education.

3. Enhancing novices' potential in conservation and carrying on local culture and wisdom

The aim is to provide opportunities for novices to acquire knowledge in local wisdom and culture of their area, love their locality and see the value of their local wisdom and culture legacy. Activities include arrange a learning process regarding local dialects, culture and wisdom; promote and support activities related to the fostering of local wisdom and culture including holidays according to local culture, local dharma readings, local food, games, dialects, herbs etc.

4. Enhancing novices' vocational potential

The aim is to provide opportunities for novices to develop basic vocational knowledge and skills and the principles and values of co-operatives. Many basic works for daily life use such as traditional craft work, electrician's work, and household item repair have been taught to the novices. Learning to do such work can provide a basis for further skill enhancement. In addition, the principle of co-operatives has been brought in, allowing novices to learn to work together systematically and to prepare transactions and accounting records for transparency and accountability.

❖ Results

Every General Buddhist Scripture School participating in Her Royal Highness's program runs nutrition and health services, as well as general education and vocational education. The following are some progress reported.

With the support from Her Royal Highness in the amount of 10 baht/ novice/

meal, the schools can offer free lunch to every novice every school day, as the communities in which the schools are located cannot offer enough alms for all novices. Through school lunch service, novices not only have adequate nutritious and clean lunch but also learn, practice and develop healthy eating habit and personal hygiene practice. In addition, the schools provide free milk to every novice in the morning (at 8 o'clock) of every school day. Milk powder is supported by Her Royal Highness for 200 school days. For novices who do not have breakfast, drinking milk can prevent them from hunger and then can help these novices concentrate to their study.

After providing meal to novices, weight and height of novices are measured twice a year for monitoring nutritional status. It is shown that novices are now facing with the double burden of malnutrition, both under-nutrition and over-nutrition. The trends of malnutrition between 2010-2014 have slightly increased both under-weight, stunting and obesity.

Nutrition status	2010	2011	2012	2013	2014
Prevalence rate of stunting (%)	6.34	6.12	7.91	6.79	6.46
Prevalence rate of underweight (%)	2.28	5.10	2.30	2.85	2.69
Prevalence rate of obesity (%)	11.69	11.35	13.45	14.75	15.13

❖ Conclusion

Each year, about 2,000 youth who finished grade 6 can have access to higher education by entering the General Buddhist Scripture Schools as novices. Not only studying in general education, the novices are also provided with nutritious and safe meal for promoting good nutrition and good health. Through this means, youth can have greater opportunity for education as well as develop themselves to be more productive members of the communities in which they live in.

***Career Skills Development for Children and Youth
in Islamic Private Schools
Initiated by Her Royal Highness Princess Maha Chakri Sirindhorn***

Network of Princess Sirindhorn's Islamic Private School

❖ Background & History

Islamic Private School in Thailand initially developed from “Por-Nor,” Islamic Religious School initiated by the local people who wanted to have a place where children could learn Islamic teachings and Islamic ethics. The word “Por-Nor” came from the word “Pondok,” which means “shelter” in Arabic, and “little hut” in Malay. Such meanings reflect the fact that “Por-Nor” is a kind of boarding school where children live at the school while studying there.

At “Por-Nor,” students’ huts are built on a teacher’s land (or a donor’s land). The students would live in these huts during their enrollment. Classroom buildings are located near the teacher’s house (who owns the “Por-Nor”). Both classrooms and living spaces are segregated for boys and girls. The teachers teach with faith and do not demand any pay for their services. Thus, the teachers usually have to work a second job to earn their living.

The students at “Por-Nor” are usually 12 years old or older. Most of them have finished their primary education (6th grade) and are from the nearby areas. The curriculum at “Por-Nor” focuses on Islamic faith and practice that are based on The Koran. Textbooks are in Arabic and Jawi. Each teacher has his own teaching style. There is no common standard regarding the teaching agenda, the length of the study, and the way the students’ performances are evaluated. Generally, the teachers will decide when the students have accumulated enough knowledge. This may take up to 10 years. The main objective is to train the students to be able to pass on Islamic teachings to others.

During 1965-1968, the Thai government had a program to transform “Por-Nor” to become People’s Islamic School. The objective was to improve the quality of education being provided to children and youth and to have the schools be under the government’s supervision. The program was to be completed by 1975.

There are three types of People’s Islamic Schools

1. People’s Islamic School that teaches only religion
2. People’s Islamic School that teaches religion and general subjects in accordance with Adult Education Level 3
3. People’s Islamic School that teaches religion and general subjects in

accordance with the Ministry of Education's Primary/Secondary education curriculums

In 1985, People's Islamic School is renamed as Islamic Private School in accordance with the Private School Act B.E. 2525 (1982).

❖ **Management and Administration of Islamic Private School**

Almost all of the Islamic Private Schools under HRH Princess Maha Chakri Sirindhorn's program teach religion along with Primary/Secondary Education in accordance with Section 15(1) of the Private School Act B.E. 2525 (1982). The Islamic Private Schools receive budget from the government the same way the regular private schools do.

Islamic Private Schools have two curriculums

1. Islamic Education – This curriculum is composed of Islamic Teachings, Social Studies, and Ethics.

2. Formal Education – This curriculum is composed of general subjects in accordance with the Basic Education Core Curriculum B.E. 2551 (2008). The subjects (at Primary/Secondary Education levels) are Thai, Science, Mathematics, Social Studies, Religion & Culture, Arts, Physical Education, Occupational Skills & Technology, and Foreign Languages.

❖ **HRH Princess Maha Chakri Sirindhorn's Initiatives**

In 1993, HRH Princess Maha Chakri Sirindhorn visited Chanya Islam School (Takbai District, Narathiwat Province) per Ali Masan (teacher)'s invitation. The school needed HRH Princess Maha Chakri Sirindhorn's support in terms of Formal Education curriculum (general subjects) since it only had Islamic Education curriculum conducted in Malay.

In 1998, HRH Princess Maha Chakri Sirindhorn initiated the quality of life development program so that children attending Private Islamic Schools could have better-quality education and career skills training. She realized that most of the students would stay in schools for 5 to 7 years. Thus, the students should receive adequate training so that they could either attain higher education or work to earn their living once they complete their curriculum at Islamic Private Schools.

In conclusion, HRH Princess Maha Chakri Sirindhorn's initiatives with regards to Islamic Private Schools are as follow:

- Provide supports in terms of formal education (general subjects)
- Provide supports in terms of career skills training such as agriculture-

related skills, technician skills, food preservation skills, and sewing skills.

- Provide supports in terms of nutrition, health, and environment such as sanitary system, building, dormitories, and drinking water system.

In 2014, there were 15 schools that belonged to HRH Princess Maha Chakri Sirindhorn's program. The schools have the total of 9,230 students and 496 staff members and are located in 4 provinces. The details are as follow:

Province	No. of Schools	No. of Students				No. of Staff		
		K.G.	Primary	Secondary	Total	Teacher	Other	Total
Narathiwat	7	-	242	3,744	3,986	297	36	333
Pattani	5	993	1,043	1,646	3,682	68	7	75
Yala	2	163	20	450	633	18	12	30
Songkla	1	256	412	261	929	54	4	58
Total	15	1,412	1,717	6,101	9,230	437	59	496

❖ Enhancing Children and Youth's Career Skills

Islamic private schools offer vocational skills training to children. The objective is to equip the children, particularly those who will not continue higher education, with necessary skills so that they can earn their living. These types of vocational skills should be developed since childhood. The activities include:

1. Agricultural/Cultivation

The objective is to teach the students basic knowledge and skills relating to cultivation. The students would plant garden vegetables for consumption. The school would prepare the land plot and the equipment adequate for the number of the students participating in the activity. The results would be recorded and the performance would be measured. Vegetables planted under this activity include Chinese cabbages, Chinese broccoli, yard long peas, corianders, and hydroponic plants. Excess produce would be sold in the market.

2. Animal farming

The livestock that the schools own include regular egg-bearing chickens, Muscovy ducks, Betong chickens, and native chickens. Aquatic animals include regular fish (in soil pond) and catfish (in plastic pond). The revenues earned are contributed to a fund which can be used to purchase necessary equipment to maintain the farming operation.

3. Production and sales of food and beverages

This activity was a result from sending the teachers to training programs at vocational colleges. The schools would provide equipment and the teachers would teach the students how to make food/desserts and sell them to earn income. Examples of food/desserts/beverages made by the students are Kratong Thong, Kuay Teow Lod, Thung Thong, Sakoo Sai Kai, Kao Kreab Pak Mor, chicken puffs, fried spring rolls, sandwich rolls, guava juice, corn juice, longan juice, soybean milk, and Chrysanthemum tea.

4. Handicraft and textile

This is another activity that can be joined by the students. The students would create artificial flowers, prepare Byfatin Fatinnie decoration clothing, sew clothes, and make print fabric. The school would provide the materials and equipment.

5. Home carpentry and technology

Most students, especially male students, are interested in this activity. The work includes welding and carpentry. The students would learn how to build desks, chairs, pavilions, and multi-purpose sports fields, parking spaces, iron fences, and shoes holders. The students could also learn how to install electricity wirings, lay bricks, and plaster walls. The activity makes the students feel proud of themselves. In addition, the students would acquire adequate skills to perform useful work for the school. Some students can create websites, fix computers, build computers, design computer graphics, and conduct printing-related work. The school provides the materials, the equipment, and the instructors.

The career skills trainings are offered in several arrangements such as in regular classes, in short-period training program, and in recreation activity classes.

Examples of career skills training in school classes

- Training in regular classes
- Training every Saturday for 1 hour (any career skills)
- Training in Career Skill class (agriculture) 1 hour per week
- Training in Art class (handicraft) 1 hour per week
- Training in Career Group class (any career skills) 1 hour per week
- Training after class on Monday and Wednesday (any career skills) from 4.10-6.00p.m. (extra class)

Total career skills training time is 9 hours per week

Examples of career skills training in short-period training programs

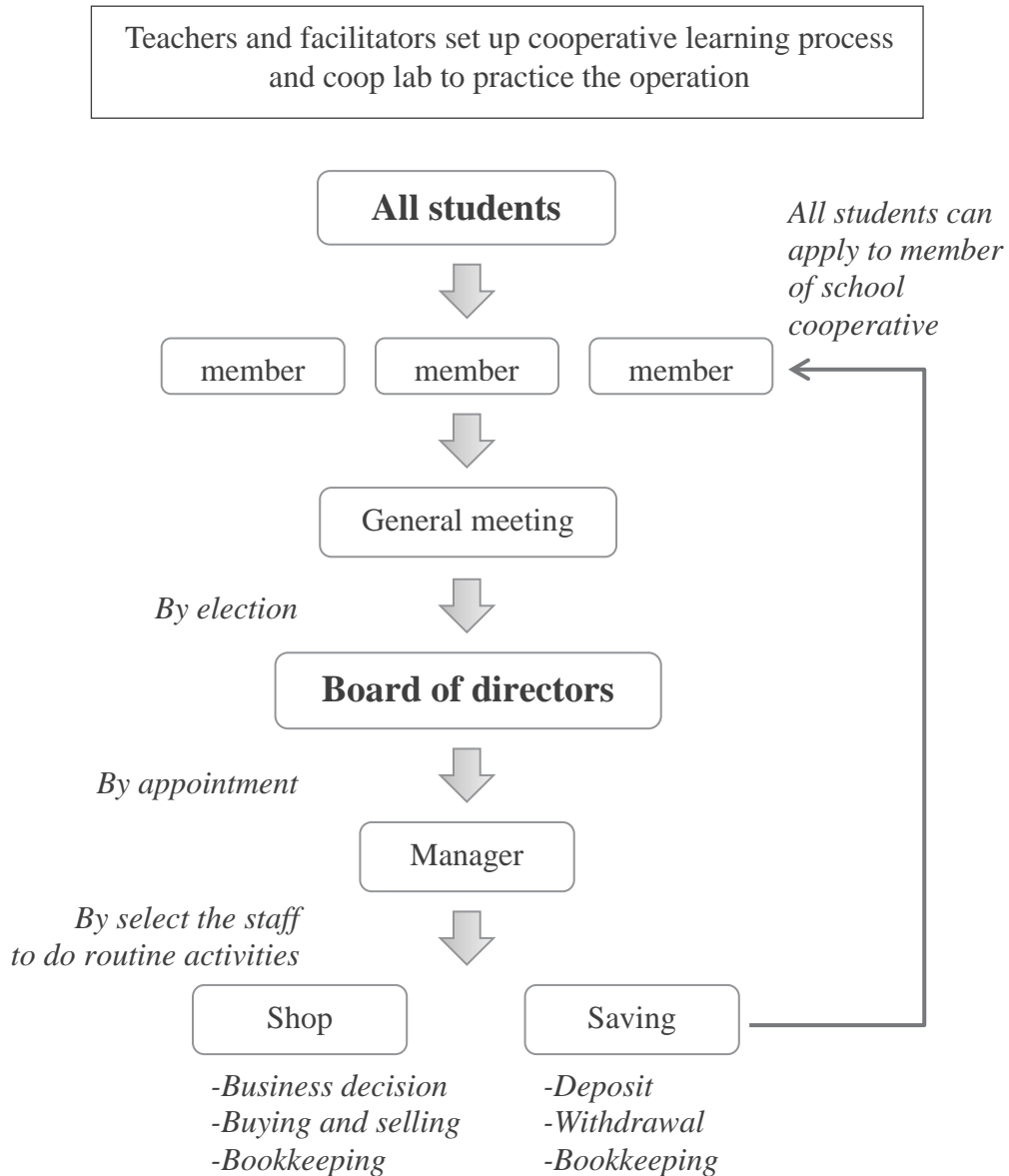
No.	Subject	Date/time	Teacher	Remark
1	Sewing (10 hours)	1. Every Friday (weekly day off) 8.10-11.10 a.m. 2. After school on Monday- Thursday 4.10-5.10 p.m.	1 female teacher	10 people for each round
2	Hair cutting (10 hours)	1. Every Friday (weekly day off) 8.10-11.10 a.m. 2. After school on Monday- Thursday 4.10-5.10 p.m.	1 male teacher	10 people for each round
3	Electronics (10 hours)	1. Every Friday (weekly day off) 8.10-11.10 a.m. 2. After school on Monday- Thursday 4.10-5.10 p.m.	2 male teachers	10 people for each round
4	Artificial flowers (10 hours)	1. Every Friday (weekly day off) 8.10-11.10 a.m. 2. After school on Monday- Thursday 4.10-5.10 p.m.	2 female teachers	10 people for each round

6. Student Cooperatives

HRH Princess Maha Chakri Sirindhorn started school cooperatives in 1991. The objective was to promote children and youth learning and the ideology of cooperatives practice (e.g., self-help, mutual help, democracy, equity, equality, solidarity and honesty). After 1998, student cooperatives in Islamic Private Schools were set up. The students learned to run small businesses based on the principle of cooperatives (e.g., teamwork, decision-making, democracy, basic bookkeeping, etc.) By participating in student cooperatives, student would learn the followings:

- Cooperative abilities, business skills, and the sense of responsibility and honesty
- Self-discipline regarding saving/spending money
- Wealth accumulation for their own future education
- In addition, the cooperatives principles can be used as management tools for school agriculture and school lunch. Cooperatives shops can be used for:
 - Buying produce from the school's agricultural production groups,
 - Selling the agricultural products to school lunch programs as well as to the community when production is excessive,
 - Lending investment fund to the agricultural production groups

The Flow of cooperative activities in Islamic Private School



❖ Outcome

Agricultural Knowledge and Skills of Students

The agricultural/cultivation program provides an opportunity for children agricultural skills. At the end of school year, the skills of 9th graders were evaluated. The results are shown below.

Percentages of 9th graders having agriculture knowledge and skills at good level

Year	% of student having Agriculture Knowledge	% of student having Agriculture Skills
2010	41.28	32.07
2011	57.26	40.90
2012	na	na
2013	63.96	52.9

Career Skills of Students

The school provides an opportunity for children to acquire career skills. At the end of school year, the skills of 9th graders were evaluated. The results are shown below.

Percentages of 9th graders having career skills at good level

Year	Home economic		Mechanic		Handicraft	
	Knowledge	Skills	Knowledge	Skill	Knowledge	Skill
2010	28.79	37.54	26.83	34.44	43.01	70.82
2011	49.26	47.84	na	na	75.82	54.89
2012	na	na	na	na	na	na
2013	65.37	68	62.76	57.35	51.89	56.19

Cooperatives Skills and Behaviors of Students

Percentages of 9th graders having cooperative knowledge and behaviors at good level

Year	% of student having Cooperative Knowledge	% of student having Cooperative Behaviors
2010	40.49	45.74
2011	64.01	66.72
2012	na	na
2013	49.85	59.83

❖ Conclusion

In the past 10 years, the fifteen Islamic Private Schools under HRH Princess Maha Chakri Sirindhorn's program have followed her initiatives. The schools have managed to provide both Formal Education (general subjects) and Islamic Education to children. The schools have maintained good standards in terms of nutrition and health. In addition, the schools have provided career skills trainings for the students. HRH Princess Maha Chakri Sirindhorn's program helped the schools to increase the quality of the education the students received and the standard of living the students maintained.

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The promotion of learning opportunities for the minorities: Mlabri

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❖ General background and challenges

In high mountain over 500 meters above sea level of northern Thailand, there are many ethnic groups such as Karen, Hmong, Yao, Lahu, Lisu, Akha, Lua, Hthin and Khmu live there. Beside those, there are also small tribal community like, Palaung, Tong Su, Chinese Yunnan or Haw, Shan, Thai Lue and Mlabri who also live along the border in their own community. Each of them, they have their own cultures and unique social characters which are different from others.

The Mlabri are an enigmatic group who, until a few decades ago, used to live a nomadic life as hunters and gatherers in the dense forests and high mountains of Northern Thailand. According to the spiritual beliefs, they moved frequently, and had no permanent houses. They build temporary shelters from green banana leaves and bamboo-sticks and just occupy these for a few days, until the leaves turned yellow. They were given the traditional Thai name of “Pee Tong Luang - spirits of the yellow banana leaves”, since they abandon their shelters when the leaves begin to turn yellow. However, since they are honest, gentle and have a peaceful character, they wish to be referred to as “People of the forest”

A study by anthropologists has shown that the Mlabri are similar to the ancient tribal culture of “Bohemian”. They from the city Xayabury, Laos PDR more than a hundred years ago. There is some controversy about the Mlabri’s origin, but at present they are recognized as (new) Thai citizens. They have had to struggle long time for this, and many problems started when their natural habitat was diminishing due to deforestation, making their traditional way of life less and less possible. Because they couldn’t have their own land, they had to work for other tribes and often faced slave like servitude, forced tour shows and other degrading alternatives.

The Mlabri’s lifestyle and culture are different from other tribes. There is no communication with the outside of the tribe. Later on, other tribes are expanding more plantations and cultivation, the land and food are shortage. Finally, they cannot any more live in the forest, they started to contact with others and experienced in the social life. Majority of them now engage in highland farming and hammock weaving, besides working as day laborers but they were very much oppressed by others.

Since the Mlabri has already migrated and settled in Thailand for long time ago, and since the 1990s, the Mlabri in Thailand have settled into more permanent

villages in Phrae and Nan provinces. One of the Mlabri settlements in Nan Province is under the patronage of HRH Princess Maha Chakri Sirindhorn. They are now recognized as (new) Thai citizens. Therefore, they should have rights to deserve a good quality of life, and to access to quality education based on the equality and equity as Thais. However, inequity in education is challenging to avoid, and can be broken down into inequity due to socioeconomic standing, race, gender or disability. The path to this universal goal is often evasive or even non-existent in many countries and in urban centers throughout Thailand which also happen to house many minorities. That is why HRH Princess Maha Chakri Sirindhorn puts her attempt to take care for the benefits of all minorities and ethnic groups. However, there are many agencies giving help to the Mlabri, they were given facilities, roads, electricity, providing educational opportunities to young people. Their houses they live in are now made of cinderblock and wood, with metal roofs and even electricity. Mlabri children have started going to public schools, and their health care has improved. Unfortunately, a development that is so often lacking off understanding and awareness, regardless of their cultural roots, then those leaded the community and the young generation of Mlabri to loss their pride of their culture and potential to revitalize their communities in their own ways.

These the reasons why the office of Non-formal and Informal Education has put the strong attempt to conduct the project “the Promotion of learning opportunities for the minority: Mlabri” based on the concept of “The culture leads the study” for the 23 Mlabri children who live in the Phufa Development Center, under HRH Princess patronage, Phufa Sub-district, Bor Klua District, Nan Province.

❖ **Related speeches of HRH Princess Maha Chakri Sirindhorn**

The experiences that Her Royal Highness Princess Maha Chakri Sirindhorn had gained from accompanying Their Majesties the King and Queen on frequent visits to rural and remote areas have inspired Her Royal Highness with enthusiasm to help the underprivileged and needy people. Her Royal Highness has therefore undertaken many development projects to improve the well being of children and young people especially those living in rural remote areas of Thailand.

In subsequent stage of development, education has become her main concern since Her Royal Highness recognizes that education is the process of learning and a tool for human development. She has been well aware of the disadvantaged people being excluded from the mainstream of education, both in rural villages and urban communities, both of which deserve equal opportunity to have access to education of good quality. Her Royal Highness expressed her concerns in human right to basic education in her speech delivered in the Food and Nutrition Seminar at Mahidol University on 17 August 2005, partly stated as follows:

“...I wish all people knew they have rights to deserve good things in their lives, not just getting what they are given. The responsible authorities should recognize such rights as well. For example, the disadvantaged group or those at the margins of society have rights to have good standard of living. Regarding the right, access to education is a fundamental human right. Education provides opportunity to learn and live sufficiently. Besides, knowledge can be valued resources to help others or community...”

Her Royal Highness Princess Maha Chakri Sirindhorn has initiated many development projects. Most of them were facilitated by and working in coordination with various agencies, both governmental and private. Among her diverse initiatives, giving assistance to needy people to relieve their urgent troubles is also one of her concerns. Nevertheless, her primary dedication is to improve people's quality of life with the highest aim that is to alleviate illiteracy, to help people survive in this competitive world.

Her interests and knowledge in several areas have led to her multiple initiatives for the benefit of Thai people; many of which are integrated development programs for example; the project under the Quality of life development in remote areas, such as Educational development for Thailand tribes, Improving childhood nutrition and health, the project Area development, such as Suanpueng Narure Education Park, Ratchaburi Province and Phufa Development Center, Nan Province.

(Note: From Her Royal Highness Princess Maha Chakri Sirindhorn's Personal Affairs Division)

Phufa Development Centre is one of the royal development project with an objective to promote and support development to enhance living quality of children and villagers in mountainous area in Bor-glua District and Chalermprakiat District, established in 1995, located in Phufa Sub-district, Bor Klua District, Nan Province, Nan Province. The center has a total area of 2,376 rai, with 600 rai being area for H.R.H.'s operation and 1,776 rai for agriculture. There are 13 groups of farmers with 127 families under care of the project so far. In addition, there are about 14 families and 64 members of Mlabri Ethnic group in Phufa Cultural Center, which was established for the conservation of the Luah Ethnic Group's culture, Mlabri Ethnic Group's culture Learning Center, “Mae Fah Luang” Community Learning Center. Here people can visit to get a better understanding of how it improves the lives of the local people in terms of their education and health and the preservation of their culture.

To address the concerns of Her Royal Highness, Princess Maha Chakri Sirindhorn, regarding the identity of the Mlabri Tribe way of life, HRH assigned the Office of Non-formal and Informal Education to conduct the project *“The promotion of learning opportunities for children and young people of Mlabri, based on the principle of “Education for the traditional and culture conservation”* since 2012.

❖ Principles and framework of the project

Office Non-formal and Informal Education – ONIE, plays important roles by National Education Act of B.E. 2542, and the Promotion of Non-formal and Informal Education Act, B.E. 2551, to promote and support, non-formal, informal education and lifelong learning opportunities to the out of school population, especially children and people mostly without opportunity to get access to formal education services.

ONIE provides choices to access the educational services and resources which are consistent with the interests and life styles of learners in every target group, such as provide the basic education in primary, lower secondary and upper secondary level, and vocational education both in normal classrooms at the community learning centers in every sub-districts and through the distance learning method for the target groups all around the country, such as underprivileged children, children in remote areas, handicaps, disabilities, street children, disadvantaged people, adult, literacy and so on. Moreover, ONIE also gives the educational services, like the short training courses for upgrading the occupational skills and life skills.

Under the project “the promotion of learning opportunities for children and young people of Mlabri”, ONIE has launched this project in 2012 with the 23 children and young people of Mlabri in Phufa Development Center. ONIE has applied Her Royal Highness, Princess Maha Chakri Sirindhorn’s words and ideas concerning the equality and equity in education, and the maintaining of the original traditional and cultural way of life of Mlabri. Because at present time, the rapid progresses of the civilization in all areas are affected to the original way of life and rural community environment, almost none of original ethnic traditional and culture way of life left for future generations to savor the beauty of the culture inherited from the past, as same as the original Mlabri’s tradition, culture and wisdom which are already the world heritage, where left only in Thailand, and if children and young generation of Mlabri do not pride and keep their traditional and cultural way of life, one day Mlabri will completely perish from the world. Then, ONIE applied the concept of “The culture leads the study” which means all the educational activities and processes of transferring knowledge, ONIE emphasizes on the reproduction of the original tradition, culture, morality, wisdom and way of life of their ethnic group together with the new knowledge, in order to conserve everything and lead the children and

young generation of Mlabri pride of their ancestry and then they could survive and live happily in the cruel and rapid changing society.

❖ Working Processes

From the concept of “The culture led the study” ONIE has developed the new special curriculum for the children and young Mlabri, and then assigned the responsibility educational institute to train and learn the studying and learning concept and processes, which are as follows;

1. Studying the Mlabri’s history, values and morality, lifestyle and traditional and cultural way of life in order to get to know and understand the Mlabri before proceeding the development processes.

2. Creating the processes of raising awareness for the members to recognize how important of the value and wisdom as well as to change the attitude and to stimulate their pride, self-confidence and then they can stand with the dignity and survive with others in the society.

3. Investigating the Mlabri’s culture among the members and educators who attend the training by using the participatory learning methods in order to develop the skills and acquire knowledge. The focus point of the mutual learning process can be leaded the community to achieve the restoration of the lost or missing wisdom to be existence.

4. Managing the knowledge by classify the information gaining from the investigation process into categories.

5. Verifying the information for the accuracy by the educational processes for the right conclusions.

6. Making conclusion of the knowledge that has been compiled after the verification by the elderly in the community.

7. Designing the educational processes for the appropriate patterns and processes, by using the following processes;

- 7.1 The analysis of both learners and the interested target group from outside who would like to learn about Mlabri as well as the children and young Mlabri

- 7.2 The analysis and selection of contents to deserve the needs of the learners and the interested people

- 7.3 The designing of the presentation of contents and the learning activities

- Building up the Cultural Center of Mlabri as the informal education learning resource

- Producing the media releases, information pamphlets, publications, exhibitions and so on

- Transferring from the elderly by telling history, stories to the children and young Mlabri

- Training the lecturers or trainers from the Mlabri in the community to know how to transfer or communicate with the appropriate format to the targets

❖ **Outputs and challenges**

Outputs

There are the succeed outputs from the study by using the investigating processes mentioned above, they are as follow;

1. The children and young Mlabri have developed their knowledge about their own culture and their traditional ways of life. Beside this the investigating processes helps them to develop their skills how to plan and work with educators including how to select tools for interviewing, recording, writing and presenting all knowledge and wisdoms from the old generation to younger generation.

2. The children and young Mlabri have the cultural immunity. They have better understanding and pride and see the value of their own culture; moreover, the seniors Mlabri are also recognized as the tribe's wisdom and information resources.

3. Currently, there are several young Mlabri who have been trained to be the trainers or lecturers, can tell and transfer their own history to any others, and some can even guide tourist who visit the Cultural Center of Mlabri at Phufa development Center.

The Cultural Center of Mlabri is not only the informal education learning center for Mlabri and any others people, but also the Mlabri's products distribution center. The Phufa Cultural Center has generated jobs and income for the Mlabri, which is one of the best practices of the sustainable learning processes projects.

Challenges

The current situation, there are many organizations conduct and support the projects and activities to develop for ethnic groups, some development projects are the kind of significant development and many of them do not beware to conserve the original traditional and cultural ways of life of the tribes which are very sensitive, some often make uses and advantages from the identity of the tribes as a business tools, then somehow these kinds of development project and activities turn to be the destroying weapon to the human dignity and human rights of the minorities. These are challenges for the government agencies to keep watching and solving these challenges by giving advices to any others agencies to conducts the appropriate development projects for the truly beneficial of the minorities.

❖ Summary and Recommendations

The models of development from any others agencies are diverse, but then before launching or conducting any development projects especially for the minorities, the agencies should study and be understand the grass roots of the traditional and cultural ways of life of the minorities. Here are some recommendations to conduct the development projects for the minorities especially with the Mlabri;

1. The agency should think about how to provide more opportunities to strengthen the Mlabri without destroying or changing their traditional and cultural ways of life, therefore they can live peacefully as they used to live in the modern society.

2. People in the society should be opened minded to respect and recognize the minorities as they are also human, and they have rights to serve the equality and equity as same as any others in all areas.

3. The important concerns to give the learning opportunities or any other development projects for all minorities and ethnic groups are to carefully consider their cultural roots, tradition, ways of life, beliefs, value and social structures in order to maintain their tribes and prides from generation to generation.

4. There should be the provisions or the written regulations for the cultural development projects or activities regarding the royal words, then all the concerned agencies can follow and then there will be no interfering from the outside agencies that would take advantages from the minorities.

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Bhutan's Experiences

❖ **Introduction**

The Kingdom of Bhutan is a landlocked country, located in the South-East Asia in the Eastern Himalayas, bounded by India in South and South-West and China in the North and North-West. Virtually the entire country is mountainous with an area of 38,349sq. kms. that ranges in elevation from 100m along the Indian border to the 7,554m Kulha Gangri peak on the Tibetan border. These two extremes frame a landscape which stretches from sub-tropical to arctic like conditions, blessing the country with abundant flora and fauna. The country currently has around 80 percent forest cover in accordance to the National Constitution which demands a minimum coverage of 70 percent at all times.

The population of Bhutan is around 762,035 (projected for 2015). Per capita income of the country is estimated to USD2,418 (2014) with a GDP growth rate of 5.7 percent. The poverty rate currently stands at 12 percent since 2012. The nutritional status of the country is 5.9 percent for wasting, 12.8 percent for underweight and 33.6 percent for stunting.

Bhutan became a Democratic Constitutional Monarchy in 2008, holding its first parliamentary elections. The second parliamentary elections was held in 2013 which saw another successful conduction with People's Democratic Party (PDP) becoming the current elected government. The country's development philosophy, Gross National Happiness (GNH), stresses the achievement of equitable and sustainable development over economic growth at any cost. From the beginning, particular emphasis has been placed on human development and increasing rural access roads, markets, health clinics and schools.

The education system of Bhutan consists of four forms of education: 1) Monastic education; 2) School education (largest form of education); 3) Vocational education and 4) Tertiary education. The Constitution of Bhutan states free education to be provided to all school age going children up to grade X which constitutes the basic education. The entry age of children in the school education is 6 years. The education system in Bhutan is guided by the principle "educating for GNH" since education is seen as a critical medium to promote GNH and thereby create a GNH society.

The Children and Youth Development Project under the patronage of HRH Princess Maha Chakri Sirindhorn was introduced to three pilot schools in Bhutan in 2011 with an expansion to an additional three schools in 2014. The main objective

of the project is to strengthen the already existing School Agriculture Programme (SAP) which is a collaboration between Ministry of Education and Ministry of Agriculture and Forests. The SAP plays a vital role in supplementing vegetables, meat and fruits, adding diversity to the diet in the school meals. It is also a factor in the sustainability of the school feeding programme, especially after WFP's imminent withdrawal from the country.

❖ Objectives

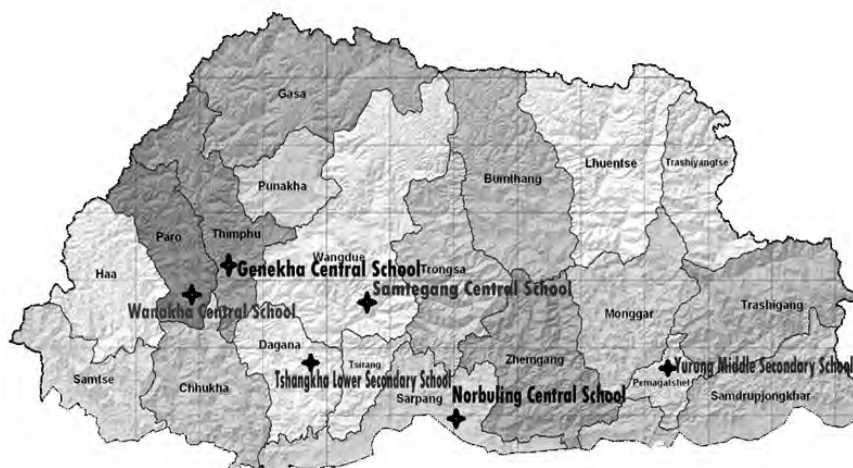
Children and Youth Development Project under the Patronage of HRH Princess Maha Chakri Sirindhorn:

1. To increase effectiveness of food production system in participating schools
2. To raise awareness and develop proper practices in personal hygiene and school sanitation.
3. To promote community participation in the feeding programme and impart the skills and knowledge acquired to the communities.
4. To share and exchange knowledge and experiences between the two countries (Bhutan and Thailand)

School Agriculture Programme:

1. To impart skills and knowledge on agriculture to the students;
2. To inculcate the dignity of labour among the school youth;
3. To supplement the school meals in diet diversity through production of vegetables and livestock products;
4. To create awareness among the students on the importance of agriculture in achieving food security and improving health nutrition;
5. To motivate schools youth to take up agriculture occupation as an enterprise on commercial basis that can help generate cash income and improve living standards;
6. To help support schools to generate cash income for school fund through growing vegetables and rearing livestock in the school campus;
7. To curb the rural urban migration issues and work closely with the community people

❖ Project Sites (location of participating schools)



❖ Main Activities

	School Name	Activities
1	Genekha Central School	<ol style="list-style-type: none"> 1. Piggery 2. Vegetable garden 3. Land development 4. Fencing of the school agriculture programme area 5. Green house 6. Irrigation works 7. Poultry farming 8. Establish water filtration plant 9. Continuous health and diet monitoring
2	Wanakha Central School	<ol style="list-style-type: none"> 1. Usage of food processing units to generate funds and supplement foods during off seasons. 2. Water pipeline for irrigation 3. Fruits and vegetables cultivation 4. Piggery and poultry farming 5. Usage of different organic farming to produce good crops. 6. Mushroom cultivation 7. Continuous health and diet monitoring 8. Green house 9. Steel angle pole staking post

	School Name	Activities
3	Yurung Middle Secondary School	<ol style="list-style-type: none"> 1. Fencing 2. Water system 3. Green house 4. Farm power tiller machine 5. Steel angle pole staking post 6. Continuous health and diet monitoring
4	Norbuling Central School	<ol style="list-style-type: none"> 1. Land preparation 2. Water system 3. Storage 4. Dairy shed 5. Fencing 6. Continuous health and diet monitoring
5	Tshangkha Lower Secondary School	<ol style="list-style-type: none"> 1. Fencing of 300 meters of land 2. Two tanks of 5000 liters capacity each. 3. Continuous health and diet monitoring
6	Samtengang Central School	<ol style="list-style-type: none"> 1. Excavating plot 2. Land development 3. Fencing 4. Water supply 5. Compost shed 6. Agricultural tools 7. Continuous health and diet monitoring

❖ Results

The results of the project in the participating schools are as follows:

1. The proper fencing of the project area is a blessing for the schools. It keeps away the wild animals from destroying the vegetable gardens which increased the production. It also motivated the students and teachers to tend to the fields with the reassurance that their hard work will not go in vain.

2. The infrastructure like the shed, storage house, irrigation system etc



enhanced the production and management of the agricultural produce.

3. The children learned about sustainable agriculture without using chemicals in the vegetable gardens. They learnt that agriculture is environmentally friendly, producing organic vegetables that are healthy for consumption.

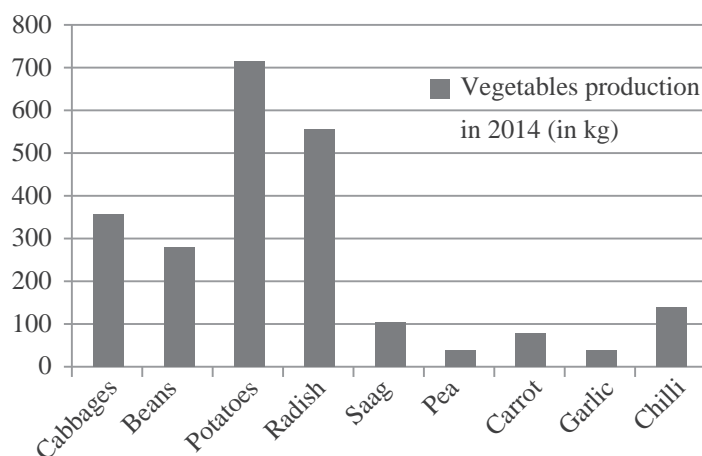
4. Working under the project taught the students team work and accounting. The students learned book keeping by recording all production, sale and expenditure during the vegetable growing processes. They also learned the business of buying, selling, profit-making, pricing etc since the produce go through a process of calculating the cost before sale.

5. The schools have become the center for learning for the students, community and other schools in the country. Study visits are being made to these participating schools from groups all over the country.

6. The schools have learned to plan the menus from what is produced from their locality.

7. Prior to the project implementation, all vegetables came from the Indian market. Now, the farmers near the schools provide the balance of the vegetable requirement that is not supplemented from the school gardens. Thus, the project has also helped in community enhancement.

Fruits and Vegetables Cultivation



8. Community helping school agriculture work – a cooperative was set up among the villagers at Yurung. This farmers' cooperative worked together with the school in the school gardens to produce vegetables to be utilized in the meals provided to the school children. In the course of helping the school, the participants in this cooperative learnt new skills and methods of productive gardening from the teachers.

❖ Lesson learned and/or Good Practices

- Since organic farming involved cultivation of plants and rearing of animals by practicing natural methods, it enabled an environment-friendly production and consumption. The use of biological materials were increased by avoiding synthetic substances to maintain soil fertility. The practice led to ecological balance by minimizing pollution and wastage.
- Through a balanced diet, the children were adequately provided with the right nutrients that helped them maintain a healthy body and in turn a healthy mind. This further instilled healthy eating habits which aided in the prevention of a variety of diseases and health problems.
- Additionally, the applied knowledge and skills on agriculture and nutrition during the school period, prepared the children in earning a livelihood and running their own household in the future.
- The farm products from the project helped in diversifying the school menu and maintaining the quality of the meals provided to the children.
- With the promotion of organic production and consumption, the demand for the vegetables at the school increased. This encouraged the community to increase their production to meet the school's demand. In this way, community participated and learned new skills and knowledge on productive agricultural methods from the teachers.

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Lao PDR's Experiences

Improvement in Food, Nutrition, Health and Hygiene of Children and Youth in the communities of Kapue Village, Thateng District, Sekong Province and Sai Village, Xaysetha District, Attapeu Province, Lao PDR

*A Thai-Lao Cooperation Project as initiated
by Her Royal Highness Princess Maha Chakri Sirindhorn*

❖ Principles

Kapue Village, Thateng District, Sekong Province and Sai Village, Xaysetha District, Attapeu Province, Lao PDR are the two villages selected by the teachers and the representatives of the Ministry of Education of Lao PDR to conduct the programme on improving childhood nutrition and health as the continuous development work for children and youth in the school. This programme is undertaken according to Her Royal Highness Princess Maha Chakri Sirindhorn's Initiative whilst it is also in accordance with the public policy of Lao PDR upon the improvement of the quality of life of children and youth in remote rural areas as a part of the nation's development plan.

Results from the community survey in September 2011 indicated that Kapue Village community are facing the chronic malnutrition problem. 28.35% of school children are underweight, 38.58% have short stature. While Sai Village community in Attapeu District also faces the same kind of problems; 28.26% of school children are underweight and 21% have short stature.

Findings on students' meals, showed that most students gained adequate carbohydrates from sticky rice, but intakes of protein, fat, vegetables and fruits are inadequate. For the food production in the community, half of all households can produce rice enough for their own consumption, while in some household family members have to seek day job to get earnings for buying rice. Other source of food are from nature such as vegetable, bamboo shoot, fish, shrimp, local river snail or Donax wedge shell, cricket and local produces. Some are bought from local vendors but very few due to meagre income.

In order to undertake the improvement in nutrition programme for children and youth which are students of Ban Kapue Primary School, Thateng District, Sekong Province and Ban Sai Primary School, Xaysetha District, Attapeu Province, in collaboration with the Office of Her Royal Highness Princess Maha Chakri Sirind-

horn's Projects, the pilot project integrating variety of activities in school and community is therefore implemented with the objective to improve the health and nutrition of children and youth in the community. At the same time this project could be used as the model for promoting good nutrition and health of children and youth in other areas Lao PDR.

❖ **Implementation**

The working group had selected the specific households of the target students whose nutrition problem are found. Household development plans have been made for both communities each of which comprising forty households, using the principles of the Royal Initiative that focuses on capacity building by means of providing education and training, inspiring the community members to realise and be willing to participate in the programme. Teachers are the key persons in motivating the programme. Afterwards, the working team of both villages comprising the village committee, the ladies group, the youth group, teachers, officials of the District and the province had made a study visit at Ubon Ratchathani Province in Thailand from 1 to 6 May 2013 and developed the plan for the development of the household, community and school. The activities are as follows:

1. Promote food production in the household to help each household provide adequate food for family members especially children; as follows:

- Encourage villagers to grow fruits by providing fruit seedlings to the target households such as seedlings of mango, tamarind, guava and lime.
- Promote aqua animals farming such as catfish, frog and other fishes by providing essential equipment for building the aquaculture system including concrete tank, young fish, fish food. At Kapue Village there are 22 farmers raising catfish, 3 for frog raising and 6 for other fish raising. At Sai Village there are 13 farmers raising catfish, 1 for frog raising and 3 for other fish raising.
- Encourage villagers to grow vegetables for household consumption by providing vegetable seeds to target households in the community.
- Support the poultry disease prevention by arranging training for livestock volunteer staff (January 2013) to be capable of producing vaccines for disease prevention in their communities, supplying vaccines and other utilities, encouraging the establishment of the fund for poultry disease prevention vaccine including vaccine production plan in both communities.

2. Promote sanitation in the household and community; as follows:

- Encourage villagers to realise the importance of using toilets by providing partial support on building toilets, improving water supply system. Target groups are at Kapue Village (15 sites) and Sai Village (7 sites), providing advice on improving

household environment such as water management, garbage, bedroom cleanliness and animal cages.

- Initiate the campaign on household cleanliness contest in order to encourage the community to develop sanitation and hygiene in their own household continuously.

3. Promote good nutrition and personal hygiene; as follows:

Provide trainings to educate target villagers on nutrition, health and hygiene including parents of school children and their family members in January 2013. Ensure their thorough understanding on problems and situation on nutrition of both communities. Seek viable solutions such as promoting healthy practices for better consumption, introducing food preparation and cooking regarding nutritional value for family members. In addition, health examination for students and family members was also be conducted twice, in September 2012 and September 2013.

4. Schools as development centres and as models for communities.

The working team of both communities has undertaken the development and improvement on schools' environment to be clean and tidy: building and improving classrooms, toilets, water supply systems both drinking water and usage water, pavement, road, drainage ditch, fence, pet cages, sports field and sports gears, agricultural system and utilities. These are continuous activities from June 2013 to June 2014.

❖ Results

1. Promote food production in the household:

- This programme helped secure food for household consumption all year round for the household with malnourished children, especially meat which is source of protein, including vegetable and fruit. An enhancement of food security for the household and community.
- Catfish raising in the concrete tank has performed well. Production can be consumed in the household and some are sold in the community. Almost every household has also used natural fish food i.e. termites, insects mixing with ready-made fish food. The goal was to bring income from fish selling as an investment for new breed of fish continuously at least 1-2 times before winter pause due to lower temperature and water scarce in drought season. However, some poor families had to consume all catfish and had no income to invest for new breed.
- Vegetable and fruit plantation for household consumption. Almost every household has increased planting vegetable and fruits. Fencing to protect animals were made. Some vegetables are grown in mobile units. However, some poor

families whose family members had to work outside their homes cannot grow and nurture their plants continuously, unlike those with moderate to higher income whose housewives could take care of their vegetable well.

- Production of vaccine for poultry disease prevention and fund establishment. At the early stage, the community has not yet realised the importance of disease prevention that should cover the whole community for effectiveness. The problem was the volunteer had to sacrifice their time and expense to produce vaccine, hence few people participated. Later on, there was the outbreak, the animals belonged to the vaccine volunteer were not infected. Villagers had therefore learnt the importance of the vaccine production to prevent the disease but they could not afford the vaccine. Only Kapue Village was able to collect the money from the community to cover the vaccine expenses, enough for the cost of next round vaccine. The reduction of the poultry loss from the outbreak have provided sufficient protein food to the community.

2. Promote sanitation in the household and community:

This programme helped improve the environment of the household and community to be in favour of promoting health and hygiene of community members. The number of patients in contagious disease declined. The community's environment became nice and clean, safe and pleasant to stay. Many activities were arranged with regards to the problems of household and community such as training on variety of knowledge for housewives, promoting the toilet usage, garbage and waste water management, and clean household contest.

The activity was expanded from target household to community, making the community enthusiastic and interested in the sanitation issue. Cleanliness of residence area were improved. Areas of each household were grouped in section for taking responsibility. Community leader and committee participated in their community development plan which cover key elements as follows:

- Roads must be clean. No garbage. Each community members' house must have waste bin. No waste around house area. Areas inside the house i.e. bedroom, kitchen must be clean. Waste water must be managed well. Animal cages must be clean with no
- Toilet usage in community members' house is mandatory. Water storage in the toilets. Clean toilets with doors.
- Vegetable and trees must be grown well in community members' house for household consumption continuously.
- Fruits such as bananas, papayas must be grown well for household consumption. Maintenance and fence to prevent animals must be made.
- Animal raising for household consumption must be undertaken such as chicken, duck, pig, catfish, etc. Vaccine as disease prevention for poultry must be made. Cages must be made with concern for good hygiene.

3. Promote good nutrition and personal hygiene:

This programme helped educate the family of malnourished children to understand the importance of food, nutrition and personal hygiene which has direct effect on the lives of children and youth, resulting on the good quality of life in the future. Many activities were arranged with regards to the problems of each household and community. For example, training on nutrition, health and hygiene, promoting on the rainwater usage, development on consumption habit, health examination for school children and family, to name a few.

4. School development to become the model for community:

This programme helped envision the household and community to see the good example of social development: clean and safe environment, waste water and garbage management, bathroom and toilet. Since schools are the centres of communities, variety of activities are normally arranged at schools which are also the community learning centres. Her Royal Highness Princess Maha Chakri Sirindhorn has funded the amount of 3,345,800 baht for the development of the schools as follows:

- Ban Sai Primary School, Attapeu Province: school building renovation, building 4 toilets, improving agricultural plots, buying farming tools and utensils, building roads within school, buying education kits
- Ban Kapue Primary School, Sekong Province: improving kindergarten classroom, buying farming tools and utensils, improving agricultural plots, improving water supply system, building roads within school, building concrete sports area, building school fence to prevent animals, buying education kits.
- Ban Kapue upper and lower Secondary School, Sekong Province: building one 9x40 metre school building, building 4 toilets, drilling for ground water, building water tanks, building concrete sports arena, building roads within school, buying education kits.

5. Improvement on school children's nutrition:

- After two years of implementation, evaluation and follow-up conducted in March 2014 at Sai Primary School on 126 students indicated that
 - The number of students with below standard weight decreased from 28.26% to 12.70%
 - The number of students with short stature decreased from 21% to 14.29%
 - For Kapue Primary School, evaluating on 201 students:
 - The number of students with below standard weight decreased from 28.35% to 21.39%
 - The number of students with short stature decreased from 38.58% to 31.34%

❖ Problems, Obstacles and Suggestions

1. Promotion on food production for household consumption. One key factor is the plant seeds, animal breeding samples and vaccines. To expand the project or to continue the activity to be sustainable, the community must be able to buy or produce them. For example, catfish raising in concrete tank, villagers had to buy catfish breeding sample from Pak Se District which is 70-80 kilometres far from Thateng District. Poor household could not afford them. If villagers are taught how to produce animal breeding themselves and sell to interested persons, it would be beneficial for the community. For the plant breeding especially fruit, villagers do not have the good breeding, they have to travel to Pak Se District as well. Teaching villagers to produce plant breeding would also be beneficial. For the vaccine for poultry disease prevention, campaign to create awareness of this issue should be arranged and made consistent all over the community for effectiveness. Fund for the expense for volunteers producing vaccine should also be established.

2. Promotion of sanitation in household and community is the important fundamental issue. Besides the campaign for cleanliness within household and community, other activities could also be incorporated such as production of vegetable plot, growing the vegetable in a beautiful presentation, growing fruit for shades and their yields, making animal cages neat and clean, to name a few. Consistent contest activity, merit for the household with outstanding performance are also key factors that help make household and community enthusiastic to keep their performance within standard with further development.

3. Promotion of good nutrition and personal hygiene is the important activity to continue consistently. Teacher has a leading role to drive and support good habit among students. Schools must keep on providing good environment and supporting students to practise and develop good hygienic habit. Periodic evaluation on student's nutritional status is very important. House call from time to time at students' home will also be beneficial. Admiration notes to the family with good progress and development in any aspects should be regularly made.

4. School development to become the model for community is very important. It is not easy to undertake the community development as long as the schools are not in good condition. Schools and teachers have vital roles in driving change and development, not only the role as the place to provide education to students but also the role as the centres of the communities. The problems incurred in both communities are that teachers are used to the same old environment and behaviour. They need to be developed and supported for change consistently and seriously. It is essential to make a visit to follow-up and witness the progress, to help provide key factors for school development to arrange training for teachers. These are important to promote and support school development.

❖ Conclusions

Improvement in Food, Nutrition, Health and Hygiene of Children and Youth in the communities of Kapue Village, Thateng District, Sekong Province and Sai Village, Xaysetha District, Attapeu Province, Lao PDR is the programme undertaken according to the Royal Initiative of Her Royal Highness Princess Maha Chakri Sirindhorn. There are participation from every section including the household, community committee, school, government office in District level and provincial level. Its implementation has integrated multiple activities in school, household and community, while children and youth are the target of the development. Key activities are promoting household food production, promoting sanitation development in the household and community and promoting of good nutrition and personal hygiene. During the past two years, the nutrition status of children and youth in both villages have been improved. However, some problem still prevails among certain area: the old habit of doing the same pattern of lifestyle. The possible solution is to arrange continuous activities for the development such as educating knowledge on plant breeding, animal breeding, establishing the fund for animal disease prevention including the perseverance and care of teachers, parents in taking care of food, nutrition, health and hygiene of children and youth, all of which would enable the sustainable development as the goal and this could be considered as a model of development in Lao PDR.

Mongolia's Experiences

“The agriculture based School Lunch” model program under the initiative of Her Royal Highness Princess Maha Chakri Sirindhorn

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❖ Introduction

Non-communicable diseases are the leading causes of the morbidity and mortality of Mongolians, which mainly affect working age population thus they are becoming one of causes of poverty. Therefore, there is a great need to implement the cost effective international best practices on reducing NCDs through changing risky behavior and adopting healthy lifestyle of Mongolians [12]. In other hand, International experience already shown that the School Lunch program is very big support for reducing noncommunicable disease through healthy, balanced diet and nutrition education from early age. Also School Lunch program should be major part of Welfare police of Government.

In 2006, all of elementary school children can participate in the school snack program, according to the Mongolian Government decision [3, 4]. School snack program means every school should organize service of ready to eat foods such as flour product, milk and hot drink for children in everyday by budget which gives from Government. The school snack program has been implementing until today, but the school lunch program not start now.

In yearly 2007 team led by Vice Minister of Mongolian Ministry of Education, Culture and Science (MECS) visited to Thailand and it was beginning base of the project. In August 2009, first team of delegates, including school teachers and governors of Altanbulag Soum, visited to Thailand, after that Her Royal Highness Princess Maha Cahkri Sirindhorn's project had been started.

❖ Objectives

1. To improve food supply for school children feeding
2. To develop sustainable supplying system of fresh and cheaper vegetable and dairy products
3. To promote students' learning by providing food production, healthy diet, basic food hygiene, and practicum of vegetable growing from childhood

4. To improve school kitchen equipment and food service
5. To help financial system of school through the selling excessive vegetables from Soum area
6. To promote multi sector team's participation at central and local levels as well as community such as "Governors – School- Students and Parents"
7. To implement School lunch model program successfully in rural area

❖ **Project sites** (Location of pilot or participating schools)

In 2009, Altanbulag Soum School had been selected that which responsible for implement project. Altanbulag soum (Mongolia have 321 Soum) is one of local governmental unit. General information of Altanbulag Soum as following:

- Altanbulag soum has been established in 1926 and locates 52 km from capital city Ulaanbaatar
- Population: 3084
- Land: 565296 hectar
- Livestock number: 214,570 (sheep, goat, cattle, horse)
- Total number of households: 930
- Economy: animal husbandry, agriculture, small manufacturing and service
- Climate: average temperature of coldest weather (January-25°C, -30°C), average temperature of warmest weather (July +25°C, +28°C)

The Secondary School of Altanbulag soum, Tuv prefecture, has been established in 1940 and the historical period is more than 70 years. School has a Dormitory with a capacity of 65-75 students.

- Total number of teachers and administrative staffs : 28
- The number of students: 392
- Students of grade I-V: 160-200, who are involving the School Shack Program

In 2014, when visited TICA and Her Royal Highness Princess's Project Office delegates, Mongolian side proposed to implement the Project in other soums of Mongolia. On the basis of mutual agreement, both of sides decided to implement the Project in more 4 soums from 2015.

We had some experiences to grow vegetables on the land near to the School, to have small cattle ranch and supply food raw material for Dormitory in the past time during 1980 and 1990s'. But this system has been disappeared within the changes from planned economy to market economy.

Not only for domestic population in the rural area, but also for all population of Mongolia, when food supply is very important issue at the present, the above Project an affair of great importance and support.

New selected schools:

1. Secondary school of Bayan Soum, Tuv prefecture
2. Secondary school of Buren Soum, Tuv prefecture
3. Secondary school of Erdenedalai Soum, Dundgovi prefecture
4. Secondary school of Uulbayan Soum, Sukhbaatar prefecture

❖ Main Activities

2009 year- starting year:

The Altanbulag soum mainly conducted animal husbandry. Vegetable growing is newly engaging work for school. In May of this year the school took 1.5 hectare land named “Bamiin bulan”, 5.5 km from soum center and built the hedge cleaned the soil, plowed the land seeded 3 tones of seed potatoes, during the summer time regularly watered and cleaned the soil. In September of 2014, 10 tones of potatoes



Cow farming

had been harvested. In October of last year, school built the roof for cows and farming 2.5 km far from soum named “Kholboot” and bought 10 of cows with calves from Batsumber soum, Tuv province and Khan-Uul district of Ulaanbaatar city. Cow farm could supply dairy products for “School lunch”. But in winter 2009, spring of 2010 Mongolia had been experienced “Zud”, which means natural severe cold snow. In this cause 5 of cows and 8 of calves died and 5 of cows, 2 of calves survived in the second year. At the present, the number of cattle’s has been compensated by new born cows.

2010-2012 year

In 2010, accommodation of the vegetable yard has been moved from the Tuul river beach to 1,5 km far away. Since then every year planted potato, vegetables and some berries trees on 3 hectares land. Altanbulag soum has a problem with water supply, so we bored a new well near to the School and the vegetable yard. Also we solved the electricity problem by using the mobile motor generator. On the around places of the vegetable yard/fields we planted trees of aspen and sea buckthorn. Also we supplied our school lunch by 30 percent of dairy products and 100 percent of potatoes, needed for School Dormitory.



Students worked on the harvesting

2013-2014 year – Continuing year of the project

From this year, we are trying to develop:

1. Multisectoral cooperation: school-governors-students, parents
2. Self financing system: to finance next year's activities by previous year's income.
3. Also we want to promote children's labor. Even though, every school children is participating and learning by doing activity. Beyond this activity, every child need understand that every good labor should give any bonus, bonus means not only money. Next main issues are sustainable good nutrition and good habit of hygiene such as hand washing. In this cause we changed school lunch menu and checked nutrient composition.

At the present, school has 12 cows and during the summer produces dairy products, such as handmade curd, keeps whole winter time and uses for students food.

Mongolia has four seasons, so, during the cultivation, harvesting of vegetables, the calving of cow and production time of dairy products students are been at summer vacation and they are going back to home to help herdsmen parents, which is needs to well organize the implementation process of the Project. Although there are such features, we had done below mentioned works during last 2 years:

- Behind of the vegetable fields we built the 100 meters of block wall.
- Built the 20m x 6m size greenhouse and sow the cucumber there.
- Built the 4m x 8m size greenhouse and sow tomatoes.
- 25 tones of water keeper we stood 3 meters of higher from the land and watering our vegetables.
- Worked with professional agriculture advice.
- On the vegetable fields worked 6 people during the summer and built the Ger (Mongolian traditional living house) for relaxing.
- We sow 11 kinds of vegetables: on 1.5 hectares land sow potatoes, on 200 meters of square land sow onions, on 720 meters of square sow cabbages, on 1200 meters of square land sow turnips, on 850 meters of square land sow carrots, on 350 meters of square land sow lettuces, on 200 meters of square land sow cucumber, on 200 meters of square land sow seed onions.
- Now 400 package leeks, 1.4 tones of turnips, 130 kilos of carrots, 240 kilos of cabbages, 112 kilos of cucumber we got from the new harvest and sold in region market, school market and shops.

❖ Results

1. In Mongolia, there are should be 2 different kinds of Model of School Lunch Program: as for city and for rural. This is very feasible Model for rural School, which is locates in soum, far away from the capital city. To implement of School Lunch Program, based on agriculture, as a Model is really good experience for Mongolia.

2. While implementing this Project, the School of Altanbulag soum has established a small farm with more than 10 cattles, planted more than 10 kinds of vegetables on the 3 hectares land and provided for the School Lunch.

3. Students and teachers fully realized that they should help for the School Farm and has been actively worked for it. In the level of parents of students, soum and the prefectural administrative well understood and supported related works.

4. This Project is being developing a Model of the Action for School Lunch for 321 soums of Mongolia.

5. In the future, it is necessary to satisfy the Nutrition intake, to fully solve the storage issues of vegetable and to improve the electricity supply.

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Vietnam's Experiences

Report on the process of implementing the collaborative project in Children and Youth Development in the Pacific Asia region in Vietnam over the past years.

Lê Thị Bích Ngọc

*Ninh Mỹ Primary School Principal
Representative of the three Schools in Vietnam*

- Her Royal Highness Princess Maha Chakri Sirindhorn!
- Ladies and gentlemen!

Participating in the International Conference entitled “Children and Youth Development Conference: Expanding Opportunities and Equity beyond Frontier,” I feel really happy, and on behalf of the Vietnamese delegation, I would like to express my honor and my warm greeting to all of you here.

In my presentation today, I would like to present the process of implementing the collaborative project in Children and Youth Development in the Pacific Asia region in Vietnam over the past years.

❖ Introduction of the implementing the project in Vietnam.

Since 2006 there have been three schools in Vietnam joining the collaborative project in Children and Youth Development in the Pacific Asia region under the Patronage of Her Highness Royal Princess Maha Chakri Sirindhorn. The schools are: Cao Sơn Secondary School (Hòa Bình Province) – in the remote area; Hùng Thắng Primary and Secondary School (Quảng Ninh Province) – in the coastal area; and Ninh Mỹ Primary School (Ninh Bình Province) – in the low-lying farming area.

Each of the schools has sent two representatives (the school principal and a teacher) to participate in three training periods held in Bangkok – Thailand (1. From 22/08/2006 to 02/09/2006; 2. From 16/12/2007 to 22/12/2007; 3. From 23/03/2011 to 01/04/2011)

❖ Objectives

1. To raise the awareness of the community in improving the living quality for the children and ensure the equity of both mental and physical development for the children.

2. To provide certain proportion of vegetables (grown and planted with microbiology fertilizer technology) and food including meat, fish, eggs for students' meals at school.

3. To teach students some occupational skills such as: vegetable planting, breeding poultry (chicken, geese).

4. To teach students some life skills such as: self-health care, personal hygiene, and school sanitary with a slogan: - for a green, clean and nice school.

❖ **Project Sites**

1. Cao Sơn Secondary School - Hòa Bình Province

The school has a total of 24 staff (19 females, among which are 9 minority people staff)

Management: 2; teachers: 17; other: 5

There are 218 students in the school (among which there are 78 female students and 192 minority students, and divided into 8 classes)

The school is located on an area of 5779m² with classrooms and other facilities for teaching and learning. The boarding area and the dining area needs repairing. The school is renting a place of 3600m² (about 1km away) for students to do the extra farming to improve their life.

Water sources: tap water and wells.

2. Hùng Thắng Primary and Secondary School - Quảng Ninh Province.

The school has a total of 42 staff (04 management; 29 teachers; and 09 other staff)

There are 576 students, which is divided into 2 sections: Primary (383 students) and Secondary (193 students).

The school is located on an area of 6000m², in which 200m² is for the project's activities.

The school has enough facilities for teaching and learning.

The boarding and dining area still needs improving.

3. Ninh Mỹ Primary School - Ninh Bình Province.

The school has a total of 26 staff (management: 03; 21 teachers; and 02 other staff)

There are 290 students (132 female students) which are divided into 12 classes.

The school is located on an area of 11000m², in which 1000m² is for the project's activities.

There are facilities enough for teaching and learning.

The school has yet the boarding area. The dining area and water source area still needs completing.

❖ Main Activities

1. Completing the dining area; providing boarding service; building a proper hand-washing area for students.
2. Improving the farming soils, producing the microbiology fertilizers, growing vegetables in accordance with the local climate and local farming time.
3. Building farms and cages; breeding poultry, fishing.
4. Taking care of students' health.
5. Educating students to preserve the cultural values of the country.

❖ Implementing of the activities.

After the first training period (08/2006), Management Boards of the schools had reported the results to the local authorities, submitted the proposal to grant land for the project, asked for the permission from the higher authorities to implement the project in the schools.

Also, the schools were granted funds by the Royal Princess Office to implement the project's activities.

1. Ninh Mỹ Primary School - Ninh Bình Province.

Conducting 4 activities: 1. Fishing and breeding poultry; 2. Planting clean vegetables; 3. Boarding and taking care of students' health; 4. Clean water for students.

2. Hùng Thắng Primary and Secondary School - Quảng Ninh Province.

Project's activities: fishing in cages in the ocean; canteen; planting vegetables without soils; boarding and taking care of students' health.

3. Cao Sơn Secondary School - Hòa Bình Province

Activities to implement: raising chickens and pigs; planting mushroom; planting vegetables; boarding and taking care of students' health; preserving cultural values of minority people.

All the project's mentioned activities has the primary financial support from the Royal Princess Office and UNESCO along with equipment and tools for cooking and students' healthcare purposes.

In April, 2011, The Royal Princess visited the schools and granted funds for the project's activities to implement of the third training period.

- **Continue to complete the dining system; clean and proper hand-washing facilities for students:**

Providing the cookers that meet the hygiene requirements following the models in schools in Bangkok; purchasing equipment and tools for the kitchen: dish shelves, industrial gas cookers, food preserving cases, food trays, ...; Finishing the

clean water system and put it into effect for students' daily use.

(for this content, local authority and local resident give financial support plus the funds from the Royal Princess)

After the visit to the school area in Vung Vieng (Hung Thang – Quang Ninh), the Princess funded to purchase tools for collecting and water treating which help teachers and students to use clean water.

- **Continue to improve fishing ponds and breeding poultry.**

Building the cages; buying breeds, food for poultry. (chicken and goose raising in Ninh My Primary School; breeding cows, fishing in Cao Son School)

- **Planting the vegetables that are suitable for farming time in Vietnam**

Continue to improve the farming soils to plant the vegetables for boarding lunch meals. Conduct students to produce microbiology fertilizers to plant clean vegetables.

- **Organizing the boarding activities and taking care of students' health.**

The schools organize the boarding activities for students and regularly carry out annual health checks for students: teeth, eyes and deworming; propagandize the formula of meal with 5 nutrition elements; food hygiene; personal hygiene; and environment protection; seasonal disease protection

- **Educating students to preserve the cultural values**

Regularly organizing competitions among the units; holding the folk games: bịt mắt bắt dê; kéo co; ném còn, nhảy bao tải, đẩy gậy,.....

Organizing social nights and performing competitions in order to preserve the cultural values such as: folk singing and dancing of Tay, Thai, Mong.

❖ Results

The schools have so far implemented the contents approved and funded by the Princess Office.

1. To propagandize and raise the people's awareness on the education for the sake of stability; and the need to improve life quality for children ensuring the balanced development both mentally and physically; and to create better life conditions for disadvantaged children, especially boarding children; helping them not to skip classes and learn better.

2. Calling for the community's participation in improving education quality. Schools had the financial support from the local authority to implement successfully the contents of the project.

3. Applying the agricultural activities to improve students' meals and teaching students farming skills.

4. Through the project, the schools have applied the philosophy 'learning accompanies practicing', combining physical activities with the educating morals for students; creating opportunities for equity among students; educating the sense of following rules, responsibility, communication skills, how to share, how to take care of other people; the need to value what has been done.

5. The schools received the delegations which made visits to check the progress of the implementing the project's contents and to present gifts from UNESCO and the Princess Office and Royal Thai Embassy in Vietnam; Thailand schools joining the projects in 2009, 2011, 2013, 2014, 2015. The Princess's visit in April, 2011 and the second visit in May, 2015 to Ninh My Primary School.

❖ **Lessons learned**

1. During the training periods
 - It is vital to acknowledge the objectives and requirements of the training program.
 - The results reported to the Princess Office should match the practice with its details and feasibility for each phrase.
 2. Implementing the project's activities at the schools.
 - In order to gain the consent, it is necessary to propagandize the meaning and the goodwill of the project to the local authority, residents, parents, and students and call for the participation in the activities.
 - The school principal plays a decisive and important role in the implementing the project's contents: giving directions promptly, planning in details, assigning the tasks that are suitable for the participants; regular checking the results; evaluating the activities; applying and selecting the contents from the training periods properly in order to achieve good results.
- Her Royal Highness Princess Maha Chakri Sirindhorn!
 - Ladies and gentlemen!

On this special occasion, on behalf of the schools in Vietnam, I would like to express my deep gratitude to Princess and UNESCO for what you have done to us.

We hope that the project will be implemented widely and will be successful in other parts of the world because all the children have the right to deserve the best. Children are our future.

We would like to be regularly trained and visit the project implementation areas in other countries. This surely helps improve mutual understanding among the nations. And more importantly, we share the willing to improve the life quality for children in the remote areas.

We expect that Princess and UNESCO will continue to fund the chosen schools in Vietnam to fulfill your hopes.

We wish the relationship between the two peoples and nations will be sustainable and prosper more and more.

We wish Princess and distinguished guesses good health and to implement the project successfully in the Pacific – Asia region.

Thank you very much for your attention!

Exhibition



Learning Management of Cooperatives in Primary School of Thailand

*Mr. Supittaya Pukjinda
Cooperative Promotion Department*

❖ **Introduction**

Learning is the most important process for lifelong learning that must be equipped in everyone for self-solution. The effective learning does not result from the efficient teaching, but the efficient learning management in line with the contents helps better learning.

The learning management of cooperatives in primary schools of Thailand is the process of educating learners or students to understand cooperative principles and practices, coexistence, teamwork under the real situation of daily life.

❖ **Why LMC needed in primary schools?**

According to the Princess Maha Chakri Sirindhorn's speech at Dusidalai Hall on 24th April 1992, that "I intend the students to know and get used to working together as a team in cooperative-like style in early childhood. Then when they become mature, they will understand its essence and finally decide to join the bigger cooperatives as members.", we all realize the importance of cooperative for education dramatically.

As known that a co-operative is an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly-owned and democratically-controlled enterprise. It is based on the values of self-help, self-responsibility, democracy, equality, equity and solidarity. In the tradition of their founders, co-operative members believe in the ethical values of honesty, openness, social responsibility and caring for others. Doing business on the cooperative basis is forming as a group helping one another to settle the economic trouble and to have a sense of well-being without the middlemen.

Cooperative has played the crucial roles in stimulating local economy growth in Thai society for over 90 years. So, co-operative is not new to Thai people especially those in rural areas. The introduction for students to co-operative is not hard and can

support students' learning about teamwork through practices and the principle of Sufficiency Economy dramatically. However, adapting co-operative principles and practices blending with education purposes into the schools can be interesting and challenged.

The key principle and ideology of cooperatives considered as the main objective of learning cooperatives is to enable the students to be in harmony with groups, work on democracy basis, possess the sense of responsibility, honesty and sacrifice, self-help and helping others.

The cooperative concept was first promoted to be taught in school in 1961. Later in 1991 owing to the Princess Maha Chakri Sirindhorn's speech to have the Director General of Cooperative Promotion Department promote the school cooperative, the holistic approach of LMC in schools, comprising lessons and activities, have took place since then till presently.

Based on the Basic Education Core Curriculum of 2008, Primary education (grades 1-6) covers the first stage of compulsory education. It focuses on acquiring various skills such as reading, writing, calculation, fundamental thinking, communication, social learning process and fundamentals of human being as well as complete and balanced development of quality of life in various respects, e.g. physical, intellectual, emotional, social and cultural with emphasis on integrated learning management.

It aims at the full development of learners in all respects. The following goals have consequently been set for achievement upon completing basic education:

1. Morality, ethics, desirable values, self-esteem, self-discipline, observance of Buddhist teachings or those of one's faith, and guiding principles of Sufficiency Economy;
2. Knowledge and skills for communication, thinking, problem-solving, technological know-how, and life skills;
3. Good physical and mental health, hygiene, and preference for physical exercise;
4. Patriotism, awareness of responsibilities and commitment as Thai citizens and members of the world community, and adherence to a democratic way of life and form of government under constitutional monarchy; and
5. Awareness of the need to preserve all aspects of Thai culture and Thai wisdom, protection and conservation of the environment, and public-mindedness with dedication to public service for peaceful and harmonious co-existence.

❖ Learning Theories

The LMC appeared in the Basic Education Core Curriculum is organized in areas of social studies, religion and culture and the principle of co-operatives in the scope of the following learning theories:

1. Student-centered Learning

It aims to provide chances for students in self-thinking through thinking process and grouping process. The students can learn on individual capabilities and aptitudes basis. The instructors, therefore, has to play a role as facilitators using various teaching methods and resources for the students to apply to real life actually.

2. Constructionism

It aims of transition from lecture to demonstration. The students are encouraged to reach the full self-learning by managing all information and experiences they gain themselves. The instructors merely provide the proper atmosphere to support student's learning.

3. Analysis Thinking

The instructors have a role to promote the thinking skills development of students constantly and intensively. The various techniques will be used to promote the systematic thinking from basic to more complex one. Through this process, students are expected to reach their full development and able to justify a reasonable judgment on matters effectively and efficiently along with ethics and morality basis.

4. Integrated Learning

It focuses on a holistic approach with wide range of models-real-life learning situation, teamwork, learning by doing. The assessment is adapted to each learning activity accordingly. The models of integration can be infusion, parallel, multidisciplinary, or transdisciplinary.

5. Brain-based Learning

The leaning management in line with the actual level of brain development will enhance the efficient learning in students. It allows the brain to function at its high levels.

❖ Learning Management of Cooperatives

In the primary-level schools, the LMC is designed for the student grade 1-6 on the integrated learning. The students can have a chance of learning from classroom, field study and practices. Through these approaches, the students will be equipped with cognition of cooperative truly till result in improving their behaviors eventually.

1. Get prepared

It starts with studying all contents in the curriculum thoroughly. Then analyze them to find out their connection with the learning objectives. After that, break down the contents into units and design the learning management. In this case, teachers can follow the manual of LMC that is produced by Cooperative Promotion Department, a government organization responsible for cooperative movement in Thailand. The manual contains the chapters about the essence of cooperatives, the Sufficiency Economy Theory, community and its solidarity, local production and consumption, grouping, teamwork characteristics.

2. Design teaching techniques and activities in accordance with the learning objectives, i.e. self-learning. The following techniques are preferably used to encourage students' learning.

2.1 Keep students constantly alert using audio and visual teaching aids that can catch their interest.

2.2 All activities in the classroom must promote the students' self-learning while teachers just play a role as moderators or facilitators.

2.3 Allow students play or work in group. It is so-called 2 (TW). First T is thinking about the capability of one own and team's before doing. Second T is talking together with team on democratic basis to set the common goals. Then First W is walking on two legs and help together. It means the group together lists all tasks and decides the assignment to each on self-help. The last W is working together on mutual help.

3. Prepare the teaching resources that are suitable for lessons, e.g. games, music, tales.

4. Prepare the various measurement tools covering cognitive, affective, and psychomotor domains and focus on the assessment under the real situation.

5. Warm up activity can arouse students' interest and get ready to study. We can use questions or play roles to lead them to the lessons, or even ask the students' comments to connect the new experiences.

6. Teaching

In class, teachers must keep encouraging students to have full participation in activities, interactive with classmates asking or answering questions.

The field study or studying outside the classroom should be organized periodically and timely. It is the chance for the students to learn the local wisdom. Learning process on cooperatives can be adapted to respective local lifestyles, traditions, or students differently from ones presented here.

7. Allow students to take part in conclusion of what they learn from lessons and activities.

8. The assessments will be carried out at 3 parts, i.e. 1) students by paper quiz, personal interview and observation, 2) teachers on teaching plans, resources, techniques and observation, 3) cooperative activities on students' participation.

❖ **Cooperative Activities**

The cooperative activities are based on cooperative concept and have purposes to ingrain the cooperative ideology in students from learning in the real-life situation, teamwork and learning by doing. They comprise cooperative store, production, saving, and services. The implementation of each activity is alike, mostly is as follows:

1. Appoint student members as the committee. Teachers act as consultants.
2. Hold the general assembly to inform members of the activity objectives, report the operation result of previous period, share profits and dividends.
3. Keep student members informed of update group news.
4. Launch the campaign of funding continuously.

1. Saving

This activity promotes the sense of savings in the students. The students can deposit the surplus money from their allowances, supplementary jobs, money from selling their handicrafts, etc., into their saving accounts at the cooperative. Such deposits will be used in cooperative operation. Apart from depositing, student member are allowed to borrow money to invest in production activity that generates supplementary income.

Procedures

- Set the regulations of receiving deposits, withdrawal, shares, dividends, loans and others as requirement of cooperative activities.
- Select the committee and staff
- Receiving deposits from members using all bank-like papers such as account book and paying-in slips for deposit and withdrawal.
- Raising fund by selling shares to members or saving campaigns. All shares will invest in selling activity afterwards. The raising should be implemented all year round for members to buy more shares as they can and for cooperatives to have more investments.
- Follow the work plan as determined which is followed up by teachers.
- Encouraging members to deposit incomes from their production at the cooperative or buy more shares.

- Approve the loan application.
- Pay dividends or patronage funds

2. Production

The activity allows the students to practice farming or handicrafts together in schools or at home. The students learn to work as a team and keep patient on duties under their full responsibility.

Procedures

- Members cooperatively select activities in their common interest such as chicken farming, gardening or making desserts.
- Members propose the project containing all details of such activities to the student cooperative for loans of investment.
- Follow the action plan under the continual consultation with teachers.
- Repay the debt to the cooperative and share the profits from selling.
- Keep members informed to deposit income at the cooperative or buy more shares.

3. Cooperative Store

The student members pool their shares to provide consumer goods for reselling to their members at fair price. Through this activity, students will be embedded to be cooperated, honest, patient, thrifty, careful and responsible for their duties.

Procedures

- Select the committee or shopkeepers.
- Pool funds from shares and savings.
- Provide goods as members' need.
- Buy products from producer members.
- Pay dividends and patronage funds.

4. Services

The student members cooperatively organize this activity to share what they have to other members and others. For example, they may be the reading corner in schools that members share their books to others for free, handicraft courses that are organized periodically by parents or even students. Through this activity, members will possess the sense of sharing, teamwork, planning and self-discipline.

❖ Expected Benefits from LMC

The students can have cognition of cooperatives and related experiences from practicing in the real situations so much that they can apply these to their working and daily life. Through the lessons and activities, the students will have readiness for working or bring all knowledge as sources for further study or performance improvement.

❖ Personnel involved in LMC

1. School executives, e.g. principals, directors or chiefs.
2. Teachers who can have cooperative class are required to achieve the training courses on cooperatives by the Cooperative Promotion Department.
3. Officers of Cooperative Promotion Department (CPD), a government organization under the Ministry of Agriculture and Cooperatives which is responsible for cooperative movement of Thailand, have duties as follows:
 - 3.1 organize the training courses on LMC for teachers annually to have cognition of cooperatives truly.
 - 3.2 produce a manual of LMC for schools and other educational institutions.
 - 3.3 produce materials and provide the teaching techniques about cooperatives for teachers.
 - 3.4 give the consultation on how to organize the cooperative activities in schools.
 - 3.5 assess the LMC in 3 parts, i.e. students, teachers and cooperative activities.
4. Agricultural cooperatives in determined areas will support the learning sometimes, e.g. contents about cooperative business or budgets for activities.
5. Students

❖ Challenges to LMC

All activities in LMC sometimes encounter the challenges. The followings are listed as problems by areas.

1. Personnel

Principals: Some attach the importance on LMC minimally because of insufficient resources such as teachers and materials.

Teachers: The problem mostly found as a challenge to LMC is frequent shifting of teachers brings about discontinuing the lessons. The replacement takes

much time because the teachers must pass the training course on cooperatives first. In schools where teachers are minimal, a teacher must be multifunctional. He or she has to do so various duties apart from teaching that there is not much time left spending on cooperative lessons.

CPD officers: CPD officers as government officers also have similar problems to teachers, that is, frequent shifting and multifunction.

Students: Some take part in cooperative activities slightly because they do not understand about the cooperative concept or the cooperative is an alternative subject.

2. Work Plan and Budget

In rural areas, the budgets from schools or concerned organizations are limited to support the cooperative lessons and activities such as the teaching resources or the field trips. Teachers sometimes produce the teaching resources by their own expenses.

❖ Recommendations

1. All contents in lessons and approaches of LMC should be updated on the modern technology and go along with the local wisdom at the same time.
2. In the production activity, it should be focused on living of virtue associated with professions.
3. The success of the school cooperative requires the cooperation from all concerned such as Cooperative Promotion Department, Cooperative Auditing Department, education institutions, communities, school executives, teachers and students. This can represent the sense of teamwork from applying cooperatives truly.

Account Making Course in Primary Schools Under Her Royal Highness Princess Maha Chakri Sirindhorn's Initiation

Cooperative Auditing Department

❖ Introduction

In October 1997, the Cooperative Auditing Department (CAD) has set an Accounting System and Knowledge on accounting to respond Her Royal Highness Princess Maha Chakri Sirindhorn's Initiation. In this regard, CAD has taught account making in schools by launching a promoting cooperatives project.

Later in 2003, Her Royal Highness Princess Maha Chakri Sirindhorn has expanded knowledge from a teaching account subject to an agricultural project for school lunch. Therefore, Farm Accounting has been taught so that the students in the project were able to enhance their management in schools.

Moreover, H.R.H. would love the students to learn how to do their own income-expense account. That is not only for themselves, but also for families and communities. Children have to transfer knowledge from schools on household account and occupational account to their parents and societies as well.

❖ Accounting is a mechanism for children and youths development

The usefulness of being able to make accounts is regarded as a foundation for making a better living such the ways as follows:

1. Attitude and habit can be adopted. Besides, we will know the value of money by spending it worthily. Saving money and being honest are included in quality of such a person. Many discipline, carefulness, attempt as well as leading our lives in a good way will exist.
2. Making accounts namely income-expense, household and occupational can help us analyze finance and accountancy of our own, families including professional development to be prosperous and sustainable.
3. Mathematical skill and Thai language skill can be advanced when we learn account making.

❖ Conceptual Framework

According to the concept that it is important to develop sustainably is to develop personnel's potential, so CAD emphasizes teaching accounting that must be appropriate, accurate, consistent, and systematic for students levels 3- 6 in primary schools. They will be trained by teachers responsible for a school cooperative project and an agricultural project for school lunch. This way can improve teachers'

potential and capacity to be able to coach their students in making cooperative account and farm account. Teachers can also guide them to do personal income-expense account which will be expanded to communities by transferring knowledge on income-expense, household, and occupational. It is the direct knowledge received from young children and schools.

❖ Knowledge Management

Following the mentioned concept, CAD has implemented learning by integrating among organizations like Office of H.R.H. Princess Maha Chakri Sirindhorn Projects, Border Patrol Police Bureau, Office of the Basic Education Commission, Cooperative Promotion Department, other agencies responsible for agricultural project for school lunch and schools providing courses concerning account making under H.R.H.'s Initiation. The procedures are as follows:

1. Body of Knowledge Building

CAD has studied teachers' potential covering knowledge and experiences paralleling to account instruction as well as the schools' readiness serving pupils levels 3-6 in primary background. This procedure includes work flow of cooperative promotion and agricultural projects for school lunch so that we will have body of knowledge on account system setting, appropriate account designing which are produced in forms of 7 handbooks:

- 1.1 Handbook on Introduction for young cooperative accountants
- 1.2 Handbook on Account of Cooperative Activity Group
- 1.3 Handbook on Account of Raising Laying Hens Activity Group
- 1.4 Handbook on Account of Raising Broiler Chickens Activity Group
- 1.5 Handbook on Account of Breeding Fish Activity Group
- 1.6 Handbook on Account of Growing Vegetables and Fruits Activity Group
- 1.7 Handbook on Account of Cultivating Mushrooms Activity Group

2. Implementation

CAD has designed the procedure to manage in-house implementation for coaching account making as H.R.H.'s wishes. It consists of 3 levels:

2.1 Teaching Procedure/Introducing accounting to teachers and students, producing and improving teachers, following-up the results of teaching. This is the responsibility of Provincial Cooperative Auditing Offices.

2.2 Result Reporting, monitoring and evaluating must be done to present to CAD at the end of year by Regional Cooperative Auditing Offices (1-10).

2.3 Document and Account Books Providing as well as monitoring and evaluating students' school records. This is the responsibility of the Office of Accounting and Transferring Technology Development.

3. Teaching Techniques

CAD teaches teachers who will transfer knowledge to students.

4. Explanation

The internal authorities in CAD must be informed comprehensively about 3 levels of the implementation.

5. Coordination

CAD has coordinated with concerned organizations and prospective schools.

6. Organizing Training Courses

CAD has trained teachers and targeted personnel.

❖ Accounting Technology Transferring to Communities

CAD has used schools as “the centers” for transferring knowledge to neighboring communities. During the years 2013 – 2015, 60 modeled schools, ready and willing to join the project, have set up Accounting Learning Centers. Cooperative Activity Rooms have been used at the beginning stage. The alumni and students living nearby have been assigned to be “Young Accounting Teachers”. Lots of activities have been created like “Peer to Peer”, “Senior to Junior”, “Students help parents in making income-expense account for families”. In this regard, every activity is done under the supervision of student committee, the attention of teachers, and the advices of local administration.

❖ Performance

1. So far, CAD has introduced an account subject in 499 schools (as of June 2, 2015).

1.1 As for Teachers’ Potential Development, 838 teachers have been trained in terms of cooperative activity account/agricultural production activity. The output shows that 521 students or 92.21% of the mentioned number can make a cooperative account.

1.2 As for Student Development, 1,092 students have been trained in terms of cooperative activity account/agricultural production activity. 521 students or 48% can make an account, 4,652 students and parents have been taught about income-expense account. And yet, 270 students or 33 % of the mentioned number can record an account consecutively and they can also save and collect money.

2. Accounting Technology Transferring to communities

There are 60 Accounting Learning Centers that have been completely established in integration with organizations in the same areas of schools. The committee who monitor and evaluate the performance together with the students in

the centers have found that most of the centers have not yet recorded the number of service receivers.

In addition, after the end of the fiscal year 2015 or the end of the modeled school project, CAD will report the outcome which is the usefulness resulting from students' changing behavior: it has been turning preferable since they have been educated about account making (as said on page 1).

***Eat well for healthy life, grow properly
at Ban Na Isaan Border Patrol Police School***

*Dr.Nuttaporn Wongsuttipakorn, Dr.Danai Teewanda,
Dr.Kitti Larpsombatsiri and Mrs.Panadda Junpornng
Department of Health*

❖ Importance

The Department of Health has set the goal to enable children and youths to adopt appropriate health behavior to be healthy and live in an healthful environment that is conducive for Thai children to reach their growth potential, have good brain function, and think in a good way. These administrations are in line with the guidelines of the WHO Health Promoting Schools which consist of 10 elements including 1) School policies, 2) School management practices, 3) School and community joint projects, 4) Healthy school environment, 5) School health services, 6) School health education, 7) Nutrition and food safety, 8) Physical exercise, sports, and recreations, 9) Counseling and social support, and 10) Health promotion for staff. The rating system consists of three levels: Bronze, Silver and Gold. Many schools from all affiliations realize for importance of health promotion in school and develop to be health promoting schools. Later, some of them continue to develop in order to upgrade the level to be the Diamond level. These efforts have contributed to better health outcomes of schoolchildren by meeting the standard criteria of health promoting school

Ban Na Isaan Border Patrol Police School has developed to be a health promoting school (Gold level) in 2552 and developed to be a health promoting school (Diamond level) later in 2555 and has been implementing continuous activities.

❖ Method

Preparation stage

1. Conducted meetings to plan for the project and establish administration committee.
2. Coordinated with the concerned organizations and agencies.
3. Conducted a meeting for orientation to ensure that all school staff would have got the related information.

The operations

1. Surveillance of nutritional status of schoolchildren
 - 1.1 Weight and height of schoolchildren were measured at least 2 times a year (About the beginning of the first semester and before the end of the academic year).

1.2 Data of weight and height were used to assess the nutritional status of schoolchildren by teachers.

1.3 The results of nutritional assessment were used to tackle the nutritional problems of each schoolchild. The results of the assessment were also sent to the parents to monitor and take part in the correction of the problems of each schoolchild.

1.4 Summary of school nutrition surveillance was done and weight and height of schoolchildren were monitored especially in the schoolchildren who are affected with problems of growth (short and relatively short), malnutrition (thin and very thin) and status of over-nutrition (obesity and overweight) to see changes of weight and height every month.

2. Promoting knowledge about food and nutrition

2.1 Health workers and teachers provided knowledge to schoolchildren and their parents about the adjustment of consumption behavior to establish the habits of proper eating.

2.2 Integrating the matters of food and nutrition into the curriculum taught through all learning matters. Let the schoolchildren participate in the activities to strengthen their knowledge of nutrition and food safety every year, such as Agriculture for Lunch Project, etc. In addition, the schoolchildren got involved with of food services in school, such as serving food for younger schoolchildren.

2.3 Provide the media to disseminate knowledge on nutrition and food safety continuously, such as knowledge corner, daily lists of food menu including nutritional values, and training to provide education about nutrition to the parents who rotated to help prepare lunch.

3. The environment adjustment to be conducive to good health and nutritional status

3.1 Provide activities, places, and facilities for growing vegetables, fruits, poultry, eggs and fish farming according to Agriculture for Lunch Project.

3.2 Cooperative of School does not sell candy, soft drinks and ice cream with high sugar content. On the other hand, desserts, suppers, and drinks which are nutritious and locally produced are promoted instead.

3.3 Improve the school canteen to meet sanitary standard criteria. Besides, clean and adequately iodized drinking water for schoolchildren and available places for proper tooth brushing is sufficiently provided.

3.4 The locations and equipment for exercise and sport are safe, enough, and ready to use.

4. Organize quality lunch

4.1 Food items are set in advance to include various types of nutritious foods and ensure that the lunch is conducive to good health and absolutely contains 5 main groups of food every day.

4.2 Promote the use of iodized salt, iodized fish sauce for cooking. Besides, drinking iodized water has been promoted. Student leaders conduct tests for iodine concentrations in salt randomly on regular basis

4.3 Provide lunch that is composed of vegetables every day (4 table-spoons per meal) and various kinds of vegetables as well as well-cooked eggs and fishes in the cooking rotation every week.

4.4 Ensure that more amount of nutritious food is included in the lunch of schoolchildren who have been assessed as relative stunt and stunt, relative thinness and thinness, such as eggs, etc.

5. Solve the problems of growth and nutrition of schoolchildren

The problems were solved by providing schoolchildren who have been assessed as relative stunt and stunt, relative thinness and thinness with supplements (milk) at least 2-3 glasses per day (in the morning and the evening) and also providing them with powdered milk to bring for preparing and drinking at home. Moreover, the problems solving included encouraging students to get breakfast every day. Food consumption among the schoolchildren who have been assessed as overweight and obesity are appropriately guided.

6. Promote appropriate exercise, sport, and recreation

6.1 Encourage schoolchildren to exercise properly, such as jumping rope, bicycling, etc.

6.2 The students get a fitness test within the first semester

6.3 Activities were provided to develop physical fitness to students who do not meet the standard criteria and let them have physical fitness tested for the second occasion with at least 3 months interval from the first occasion.

6.4 Establish a club or gathering for exercise and physical activity both in school time and beyond the school time.

7. Encourage schoolchildren, parents, and health networks to participate in health activities

7.1 Provide opportunities to the parents of schoolchildren to participate in rotation to prepare school lunch every day.

7.2 Establish a health club and assign student leaders to jointly implement health development activities in school.

7.3 Utilize traditional knowledge and resources such as individual person, knowledge in terms of cognition, learning media, and learning resources, etc.

7.4 Mobilize resources or budget from the outside to improve the operation of health development.

❖ Evaluation

1. Assess the results of weight and height measurements and physical fitness tests 2 times a year.
2. Ask schoolchildren and their parents about related information.

❖ Results

As a result of surveillance of nutritional status of school children, promoting knowledge about food and nutrition, environment adjustment to be conducive to good health and nutritional status, arrangement of quality lunch, management of growth and nutrition problems of schoolchildren, promoting appropriate physical activity, sport, and recreation, and promote the continuous involvement of students, parents and health networks in health activities, schoolchildren can reach their growth potential and obtain a proper nutritional status to their age. The number of schoolchildren who possess normal and beyond normal height with appropriate weight for height increased from 82.98% to 87.77% and the number of schoolchildren who have been assessed as thinness and relative thinness declined from 4.25% to 3.33% as shown in the table

The nutritional status of schoolchildren Grade 1-6	Semester 1 (6 Aug. 14)	Semester 2 (6 June 15)	Remarks
The total number of students (person)	94	90	The number decrease due to moving to other schools.
The number of schoolchildren who have weight and height measured (person)	94	90	
Percentage (%)	100	100	
The number of schoolchildren who possess normal and beyond normal height with appropriate weight for height	78	79	
Percentage (%)	82.98	87.77	
The number of schoolchildren who have been assessed as thinness and relative thinness	4	3	
Percentage (%)	4.25	3.33	
The number of schoolchildren who have been assessed as appropriate weight for height	83	82	
Percentage (%)	88.29	91.11	
The number of schoolchildren who were relatively overweight	2	0	
Percentage (%)	2.13	0	

The nutritional status of schoolchildren Grade 1-6	Semester 1 (6 Aug. 14)	Semester 2 (6 June 15)	Remarks
The number of schoolchildren who were overweight and obese.	5	5	
Percentage (%)	5.32	5.55	
The number of schoolchildren who have been assessed as stunt and relative stunt.:	5	4	
Percentage (%)	5.32	4.44	
The number of schoolchildren who possess normal and beyond normal height	90	86	
Percentage (%)	95.74	95.55	

❖ Summary

1. Every schoolchild has got proper health care and schoolchildren's nutritional problems have been resolved. The number of schoolchildren who possess normal and beyond normal height with appropriate weight for height increased and the number of schoolchildren who have been assessed as thinness and relative thinness declined.

2. Schoolchildren do exercise and physical activity on a daily basis. They all have passed physical fitness test (100%)

3. Schoolchildren choose foods that are beneficial to them.

4. Parents carefully pay more attention to their children's food consumption

❖ Success Factors

1. School administrators and teachers realize the importance of good health for every child and adhere to the principle of "Children and youths are the center of development through focusing on education as a major area for development".

2. Parents, village board, health volunteers, local administrative organizations, and public health agencies in the local area well cooperate in health activities.

3. Superordinate agencies support and pay attention the activities regularly. Moreover, agencies which participate in all Royal Initiative Projects provide support continuously.

❖ Lessons learned

The school has been operating on the project regularly. Continuous monitoring of the results of operation has been conducted. The school has got the participation and cooperation from parents, community members, health volunteers, and health officials. As a result, the schoolchildren realize the importance of healthy

physical strengths and appropriate health status according to their age even more. It is noticeable that schoolchildren pay attention more to their health status, Some information obtained by asking the parents about their children's beneficial food consumption and exercise revealed that the schoolchildren have more beneficial food consumption and do more exercise. School authorities have been solving problems for schoolchildren. Therefore, the number of schoolchildren who have been assessed as good height and good weight for height increased.

❖ **Suggestions / Benefits of the study.**

1. Schoolchildren's health development should be in line with the guidelines of health promoting school. Integration of health development activities into all learning matters continuously is recommended
2. Encouragement for the participation of schoolchildren, parents, community members, and local administrative organizations under the support from superordinate agencies and health authorities to adapt behavior of schoolchildren and also other people to be healthy and self-sufficient is also recommended to raise public awareness about the health care of children and young people continuously.



The control of helminthiasis and malaria among the students and population in the Princess Sirindhorn Project area

*Dr.Sopon Mekthon
Department of Disease Control*

❖ Background : important

Helminthiasis and malaria occur as significant health problems requiring treatment among the students at Thailand's border area. Many communities, a geography, environment, knowledge, beliefs and socio economic status of their parents affect the opportunity for re-infections by helminthiasis and malaria. Especially in schools located in ethnic communities around the border areas of Thailand, some students and people do not have prompt access to health care services. These illnesses affect the life skills, learning processes, development and daily life among the students and people.

❖ Princess Sirindhorn words

In 1996, Princess Sirindhorn gave a speech to encourage maternal and child health care, including the promotion of good nutrition in the indigenous areas. In that the same year the problem of malaria was included. A portion of her speech follows:

"...many diseases and illness were found, such as malaria. I saw a threat that affects schooling because both teachers and students have become ill; sometimes the doctor has also been ill. Therefore, it does not do anything. I went to visit people. Some of them were normal but many were patients. I will try to help solve these problems with treatment and protection but this is a difficult subject."

A speech on April,21, 1998

Even though, we have solved malnutrition among many children, there are still some children with malnutrition and other health problems. There is cause for concern for the helminthes problem as noted in her speech

“the reason that I concern about helminthes was important because many years ago, when I was visiting a school where many children were malnourished, I thought we needed to work on a nutrition for a long time. But this was not entirely effective since many children also had helminthes infections.”

*In 2001,
the first year of helminthes control program began.*

❖ **Methods of work**

To reduce a prevalence rate of helminthiasis and malaria, Department of Diseases Control had set a activities to implement as follow

- Screening for patient/infected among students and people and give them with anti helmenthic for treatment.
- Capacity building for teachers to strengthen their knowledge, health communication skill and changed behaviors for students and villagers.
- Teacher’s handbook development and support them with media instruction to support a student’s experiential learning.
- Empowering for teacher and community’s leader to diseases prevention and controlling in their school and community.
- Supervision and support

❖ **Result**

1. The prevalence

1.1 The prevalence of helminthiasis

- The prevalence of helminthiasis among students

The prevalence rate of helmithiasis among students under the Princess Sirindhorn’s project have decreased from 26.48% in year 2002 to 10.20% in 2015 showed in figure 1st . When analyzed by schools original affiliation, students of Mae Fa Luang hilltribe community learning center school under the office of Non Formal and Informal Education showed highest helminthiasis prevalence at 48.30% as showed on annual report year 2014 in figure 2nd . The most of parasite infection among a student was *Ascaris lumbricoides* 7.4% and *Trichuris Trichiura* was 2.7% respectively showed on figure 3rd

Figure 1: Percentage of helminthiasis among students at Princess Sirindhorn's Project area

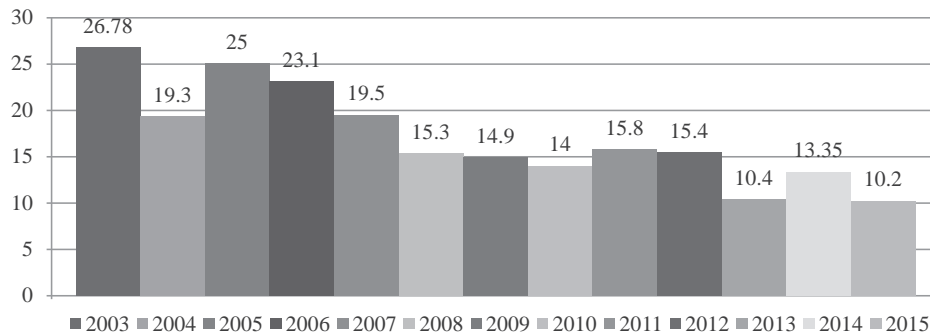


Figure 2: Percentage of helminthiasis among students at Princess Sirindhorn's Project area classify by schools original affiliation

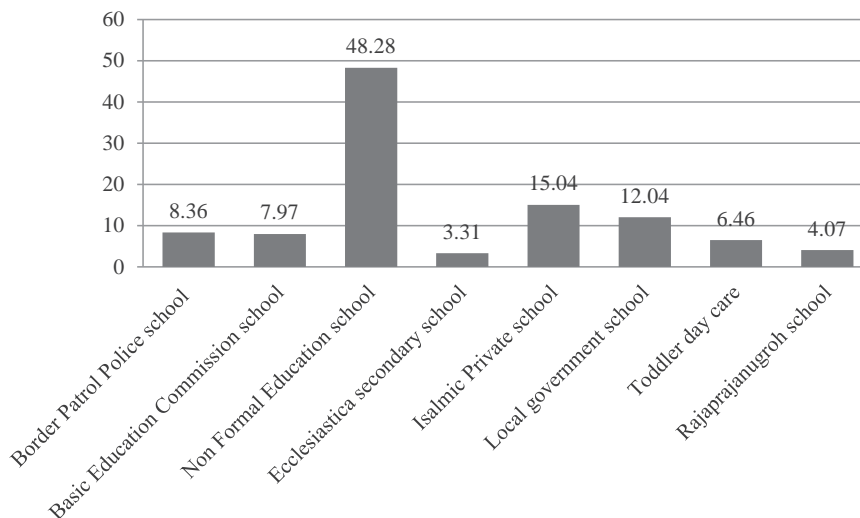
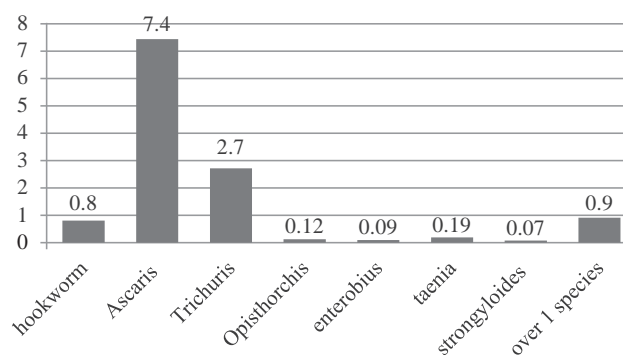


Figure 3: Percentage of helminthiasis among students at Princess Sirindhorn's Project area classify by parasite species



- The prevalence of helminthiasis among people at Phufa Phattana, Nan province

The prevalence of helminthiasis among people at Phufa Phattana area has decreased from the first year in 2002 was 56.8% to 18.5% in 2014 as the figure 4th while the *Opisthorchis viverrini* and small intestinal fluke was the highest species infection as showed in figure 5th

Figure 4: Percentage of helminthiasis among people at Phufa Phattana, Nan province under at Princess Sirindhorn's Project area

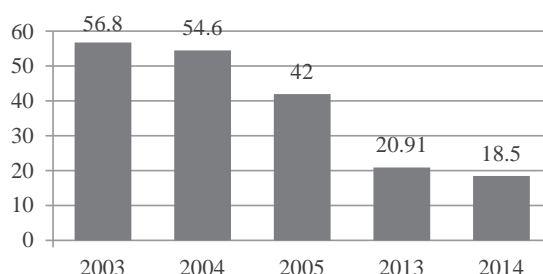
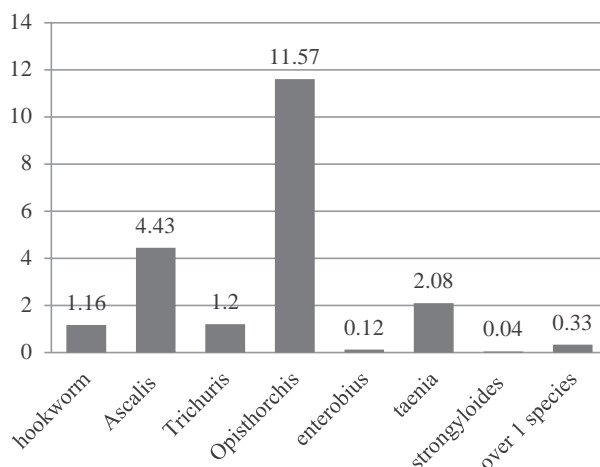


Figure 5: Percentage of helminthiasis among students at people at Phufa Phattana, Nan province under at Princess Sirindhorn's Project area classify by parasite species



1.2 The prevalence of Malaria

In year 2015, the prevalence of malaria is 0.33 per hundred thousand population. It had been increased when comparing to the year 2014 only 0.20 per hundred thousand population. Most of malaria species infection was *Plasmodium vivax* and *Plasmodium falciparum* to the students in Border Patrol Police School (BPPS) at Phetchaburi, Kanjanaburi, Ratchaburi, Choompon and Mae Hong Son which was the Thai's border area and Burma were the most infection.

Figure 6: the prevalence of malaria infection among students at Princess Sirindhorn's Project area (mobility rate per hundred thousand population)



2. Capacity building for teachers

The capacity building for the teacher at the Border Patrol Police and teacher at Mae Fa Luang hilltribe community learning center to supported the learning program with the helminthiasis, malaria and others important diseases in the remote area and setting community participation plan for diseases control. 326 of teachers were strengthened and they can applied their knowledge for implement by participatory learning with a design learning program to improved prevention behaviors among students and addressing a community's plan as followed:

2.1 Student's health behaviors

The randomize survey study of health behaviors among students between grade 4-6 amount 379 cases from 16 schools showed that most of them had improved behaviors especially wear shoes when their go outside, defecated in the toilet, washed hand before meal, washed vegetable and fruits before eat, consumed cooked food menu from fresh water crab and fresh water fish, while sending stool examination, cut fingernails, consumed uncooked food from meat and pork and defecated outside the toilet. When going to work was still a risk behavior for improving and frequency stimulate (table 1st). It is related to frequency health behavior stimulation from teacher as showed in the table 2nd

Table 1: Health behavior of a student

Variables	Practice					
	Every time		Sometime		Nonpractice	
	no	%	no	%	no	%
1. always defecated in the toilet	334	84.1	57	14.4	6	1.5
2. defecated outside when working outdoor	64	16.1	190	47.9	143	36.0
3. wearing shoes when outside	336	84.6	60	15.1	1	0.3
4. washing hand before meal and after defecated	293	73.8	96	24.2	8	2.0
5. consume uncooked food from cyprinoids fish	20	5.0	123	31.0	254	64.0
6. consume uncooked food from meat and pork	13	3.3	176	44.3	208	52.4
7. consume uncooked food from fresh water crab	29	7.3	109	27.5	259	65.2
8. washed vegetables and fruits	280	70.5	109	27.5	8	2.0
9. cut fingernails once a week	188	47.4	196	49.4	13	3.3
10. sending stool for examination	162	40.8	216	54.4	19	4.8

The teachers and parents had stimulated them to have more knowledge , improved health behaviors frequency such as advised them to washed vegetables before consume, always wearing shoes, washing hand, defecated in the toilet, consume cooked meal and cut fingernails. Whereas the stimulation for life's skill improvement, had integration a helmihtiasis and malaria by applying all learning essence in all class. (As showed in table 2nd)

Table 2: The stimulation for improvement student's health behaviors by the teachers

Variables	Practice					
	Every time		Some time		Nonpractice	
	no	%	no	%	no	%
1. teaching contents about helminthiasis	170	42.8	197	49.6	30	7.6
2. advise to preventing a helminthiasis by consume cooked meal	253	63.7	128	32.2	16	4.0
3. advise to preventing a helminthiasis by washing hand	307	77.3	85	21.4	5	1.3
4. advise to preventing a helminthiasis by defecated in the toilet	267	67.3	112	28.2	18	4.5
5. advise to wearing shoes when going outside	328	82.6	60	15.1	9	2.3
6. advise to washed vegetables before eat	344	86.6	51	12.8	2	0.5
7. checking fingernails and clothes	240	60.5	152	38.3	5	1.3

2.2 Community and school development

Department of Diseases Control, Department of Health and networks have developed a Health Standard Evaluation Principles (HSEP) for Border Patrol Police School (BPPS) to framing a health improvement's guideline and environment developing support for a student's healthy in BPPS cover in 7 principles of standard health development that include a management and empowering, building and environment, toilet and place to brush the teethes, a management of a waste sewage and carrier, housing sanitation, nutrition and food safety and health behavior and learning process. The school's self evaluation and presentation of the developing need to school original affiliation, Department of Health and Department of Diseases Control for finding a way to support the development process to meet the standards.

Health development for the Border Patrol Police's School

16 BPPS were a representative of each Border Patrol Police Division was included to school model development. The development setting based in a community, school and network participation. The first result of school's self evaluation by using HSEP showed that 3 schools were excellent, 12 schools were good and only 1 school passed a basic level as showed in table 3rd

Table 3: The result of first self school evaluation by using HSEP

School name	District	Province	Evaluation result
Singapore Airline	Soidao	Chanthaburi	Good
Ban toongkabin	Wandsomboon	Sra keaw	Good
Henkel Thai	Saiyok	Kanjanaburi	Good
Klong noi	Huahin	Prajoukirkiran	Excellent
Lady Suprapada kasemsan	kabcherng	Surin	Good
Ta Em	Namkoon	Ubonratchathani	Good
Ban nhongdoo	Ponsawan	Nakhon phanom	Good
Ban houy pao	Pakchom	Loei	Good
Yodphoethong1	Bankok	Uttaradit	Good
Airport Authority of Thailand secondary School	Mae Fa Luang	Chiang rai	Good
Heangthai thamrong	Mae Ai	Chiang mai	Good
Chula-Thammasat 3	Thasongyang	Tak	Excellent
Santinimitr	Thasae	Chumphon	Good
Bankaowang	Ronpiboon	Nakhonsithammarat	Good
Bantoongsabayjai	Sadoa	Songkla	Excellent
Airport Authority of Thailand	Rueso	Narathiwat	Basic

3. Community development for diseases prevention

A helminthiasis and malaria reinfection among students especially the schools that located in remote area, most of them are ethnic people and they do not have access to health service was the health problem that effected to their learning process and life's skill improvement. The data from random supervision found out that most of the schools had a student's behavior improved their activities that include and integrate on various subjects depend on their community context. But in their family and community's environment, the parents lack of health concern, participation to improved behaviors for preventing helminthiasis, malaria and others important communicable diseases that occur a community health problems.

A school based development to community or school based approach of Princess Sirindhorn concept was a main concept for applying community development combined with community, all of private sectors and government networks participatory management for solving student's health problems to reduce a prevalence of helminthiasis reinfection, malaria, supporting prevention process and diseases controlling among schools and community with included 3 communities's models development, there are

- Mea Ok Hoo village, Mea Lha sub district, Thasongyang, Tak province
- Na To village, Terd Thai sub district, Mea Fa Luang, Chiang Rai
- Poo Mhuen Nai village, Mea Sao sub district, Mea AI, Chiang Mai

In the first year of community development process was to make networks cooperation to planning and community environment management within the community, networks and schools participation such as a Thai's border security sectors working together with the local health sectors to study a community problems, analyzing and planning under the community cultural context. The successful of the development process showed that the community environment structure had improved and changed. Each community has a specific model development, it's difference model from one another and each community had developed and supported their networks. Therefore, it can summarized development process as follow:

- Finding a network, clarify project's objective through the meeting, community context's analysis by coordination networks, a study of culture's context and community's environment for planning and implement by their organization's mission.
- Design activities or planning an action for matching to the community problems and needs.
- Implement such as participation on developing community and improving environment, find the health problems and give the health education to the people and students.
- Memorandum of Understanding among networks to settle on an agreement for development based on their own cooperation's mission for development and sustainable.

- Summary and continues planning for improvement.

In the first stage of communities development were to start networks building, networks co operation planning for moving to the second stages, therefore the successful of the first year due to the participation of co worker networking.

❖ Summary and Recommendation

The prevalence rate of helminthiasis among people and students were decreased as same as the infection of malaria in student at Princess Sirindhorn Project area. It can mention this success began from the continuing operation in screening, investigation, treatment, health care and supporting with the materials for disease preventing among students and people. Combination with health concerning from teachers that effected from capacity building process which strengthen them with learning experience on health, setting various activities for behaviors changed in their schools, schools and community's environment improving to support the student's health promotion and prevention. Therefore, for sustainable of student's health development should be screening and investigation for helminthiasis and malaria infection for continue treatment combined with teacher's capacity building for addressing in the learning process to change and improve their behavior. The schools and community's environment must be managed at the same time. It promoted a healthy student. The supported from the networks brings it to success and sustainable development.

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Agriculture in Limited Arable Land

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❖ **Rationale**

Agriculture for School Lunch Project is a project under the Development plan of Children and Youth in the Remote Areas initiated by Her Royal Highness Princess Maha Chakri Sirindhorn. In the project, teachers, students and their parents participate in school agriculture. Their agricultural products are used to prepare school lunch. This not only solves the problems of not having enough lunch and nutritional status but also equips the students with basic knowledge and skills in agriculture which can be used to earning their living in the future.

At present, the School Lunch project is carried out in 714 schools of 50 provinces. These schools are diverse in topography. Some schools are located on the mountains, some are on sloping lands, and others are on coastal areas which have salty soil. Some schools are in the areas with degraded soil and some are in Bangkok. Department of Agricultural Extension (DOAE) has been involved in promoting food crop production at schools under Agriculture for School lunch Project since 1980.

From then DOAE has found that a number of schools do not have enough arable land. Several schools are in Bangkok which is limited in terms of areas. Some are in remote areas or areas far away from water resource, causing the limitation in water supply. Therefore they cannot produce enough food for students' consumption.

❖ **Operational Approaches**

Agriculture in Limited Arable Land aims at solving the problem of schools with less of arable land or water supply. There are options for growing plants in small spaces as follows.

1. Vertical Gardening: Principle of vertical gardening is to make use of vertical spaces instead of using horizontal areas. This can be done by constructing supports or shelves to vertically stack vegetable pots.

Considerations for vertical gardening are:

- **Sunlight:** Most plants need sunlight at least 6 hours per day. However, light can produce the heat which harm the plants in some ways. For example, brick wall absorbs heat then radiating to harm the plants hanging on them. There should therefore prepare some space between plants and brick wall to reduce that heat. Moreover, plant leaves should not be exposed to strong sunlight for the whole day.

- Strong wind: Strong wind can take away moisture from the plants, resulting in faster evaporation rate, wilting, and stem breaking. Thus, plants should not be exposed to strong winds.

- Water source: Growing plants near a water source facilitates watering them frequently. Container-grown plants need to be watered more often than those grown on land due to containers have restricted water capacity.

Plant varieties: Choose plants varieties that do not have too deep root system and suit the environment around the growing areas such as, lettuce, various kinds of salad vegetables, ivy gourd, chili peppers, tomatoes, white gourd, pumpkins, luffa, cucumbers and yard long beans.

Care for vertical gardening

- To provide stake support or other forms of strong and stable supports. Strong supports are necessary because the more plants grow, the heavier they will be. The weight of the plants may pull the supports down.

- To inspect the moisture of the soil.

- To apply fertilizers regularly. Applying biological extract are appropriate technology for rural areas, keep to apply every few days.

2. Gardening in containers: The method is appropriate for the areas with infertile soil. Growers can control fertility of the soil in containers.

Suggestions:

- Containers: Choose appropriate containers for root system of each plants:
 - Using baskets, plastic bags for growing vegetables with shallow root system, such as coriander, green onion, water convolvulus, Chinese kale, Chinese cabbage, lettuce and cabbages

- Using sack, car tire to grow vegetables with moderately deep root system such as hot basil, sweet basil, chili peppers, egg plants, tomatoes, cucumbers and yard long beans

- Using bamboo crate, cement column to grow small fruit trees such as, banana, papaya, custard apple, mango and sapodilla

- Planting methods: Planting methods such as direct seeding, transplanting, or cuttings are available depend on type of plants.

Planting medium for vertical gardening and gardening in containers must be suitable for plant varieties. Growers may mix their own media using 25% soil, 25% sand, 25% compost or manure and 25% rice-husk ash or mattress fiber. Mix the ingredients well before using. In case some ingredients are not available, a mixture of manure, composting leaves or composting bamboo leaves and soil can be used.

3. Hydroponic Gardening: Hydroponic is a method of growing plants using mineral nutrient solutions, in water, without soil. Plants are grown in the solutions which have sufficient nutrients for plant growth. The method can be called “soilless cultured vegetables”. Advantages of the technique are, small space requirement, free from soil contamination and clean vegetable products. The key idea of soilless culture is that water must be delivered to the plants all the time. Nutrients are fed to plants through water system which must be continuously circulated. However, for some vegetables including, green onion, luffa and Chinese cabbage, the roots can be soaked in the water all the time without circulation.

In remote rural areas, organic solutions, such as biological extracts of animal manures and biological extracts of plant humus can be used as solution base or a source of micro nutrients for hydroponic vegetable culture. Small amount of balanced fertilizers may use to be a source of nutrients.

Biological extracts from different animal manures provide different kinds of nutrients. Extract from bat manure gives high nitrogen level. Extract from earth worm manure contains nearly enough macro nutrients for plant requirement. The solutions with extract from earth worm manure need very small amount of chemical fertilizers. While extract from pig manure has to be tested for heavy metals contamination before use. Moreover, the pig manure used should be from piglets fed by diets.

Solution preparation using pig manure

- Pour 50 liters of water into a 200 liter plastic bucket.
- Put 30 kilograms of dry pig manure into a netted bag. Soak the bag in the bucket of water and leave it under water surface for 24 hours, then remove the bag from the bucket. Note that: Do not leave it longer than this because manure will decay.
- Leave the solution to ferment for 5 - 7 days. Fermented solution of pig manure extract is ready to grow vegetable hydroponically

Application of pig manure extract solution as the nutrient in hydroponic gardening

- Prepare the tray and hydroponic infrastructures as general hydroponic system.
- Prepare 100 liters solution using 50 liters clean water and 50 liters pig manure extract. Add 100 grams of 16-16-16 fertilizer to the solution to grow Chinese cabbages. Add 200 grams of the fertilizer to grow Chinese kale and water convolvulus.
- Grow the vegetables with hydroponic method. If the solution decreases due to evaporation, add pig manure extract to the solution to keep the solution at the same level.
- Spray the mixture of 1 liter pig manure extract diluted by 10 liters of water to vegetables every 5 - 7 days.

- Take care of the plants in the same way as general hydroponic method. If the leaves are yellowing or the plants are not vigorous, add 100 grams balanced fertilizer, such as 16-16-16 fertilizer to the solution. Regularly inspect the plants, if they stop growing, apply 100 grams of a balanced fertilizer every 5 days then stop applying when the leaves are healthy. The pig manure used should be from finishing pigs fed by diets.

Solution preparation using earth worm manure extract

- Put earth worm manure into a sack then soak it in a water bucket. Apply oxygen gas to the water for 3 days. Remove the manure sack from the bucket.
- After 3 days, add yogurt and brown sugar to the solution. Apply oxygen gas again for 3 - 5 days

Application of earth worm manure extract solution as the nutrient in hydroponic gardening

- The solution can be directly used as a solution base without water added. Add 50 liters of balanced fertilizer to 100 liters of the solution.
- To spray, make a dilution from 1 liter earth worm manure extract by 20 liters of water. For thin leaves vegetable, use 30 liters of water instead of 20. Spray dilution every 7 days. Regularly inspect the plants, if they stop growing, add 50 grams of a balanced fertilizer every 5 days and stop adding it when the leaves are healthy.

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Rearing Red Tilapia in cage culture

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❖ Backgrounds

With the Thai Department of Fisheries effort, the fisheries Supporting Lunch program under HRH Maha Chakri Sirindhorn has been initiated through the Forth Development Plan on Children in Rural Area. This has been implemented in aspect of school fisheries as well as training program aiming to extend both the aquaculture knowledge to student and fisheries production in school for supporting lunch program. The fish culture types in any school actually are categorized in any characteristic on specific location. Those are fish culture in earthen pond, cement pond and plastic sheet pond. In some case, the catch crop problem was found because of the deep pond which scarcely exchanges the pond water. Owing to the culture period normally has been around 6-8 months, all fish production as once catches crop is only for a semester. There would be no production to be sufficient for supply the school lunch program for all semester.

Therefore the cage culture project has been implemented by The Thai DOF aiming to prolong the raising period for all semester. The common aquatic animals are Tilapia, Hybrid catfish and frog etc. In some school request to supply the red tilapia because the color of its meat texture is pink which is different from the common tilapia, and the wall in the abdomen cavity is blue-white. The red tilapia had been found at first in 1968 at Ubolratchathani Fisheries Station. On January 2nd 1974, this fish has been stocked in Chitralada Palace by HRH Maha Chakri Sirindhorn and named “Red Tilapia”. This fish has become well-known as “Thai Red Tilapia” all over the world. This fish in cage culture is such a aquaculture that enables gain the high fish production. It also provide the highest beneficial to school which enhance the fisheries production and sufficient for the student consumption.

The fisheries production is a significant activity in school aiming to provide the practicable knowledge and fundamental skill for children in sustainability to produce food for their consumption and for the Lunch program through all semester. Moreover, it also intend the participating learning among student, teacher and their parent in agriculture activities in school so as to take these knowledge to practice for their livelihood and community further on.

❖ Methodology

1. Cage

Size : 3 m x 3m x 1.5 m, 2 cages/place

Cage is structured with bamboo wood and fixed with net (50 cm width) surrounding at edge of the net to avoid pellet floating out from cage while feeding

2. Fish

Sex reversed Red Tilapia: Average initial weight	40 g
Average initial length	8 cm
Stocking rate	60 fishes/m ²
Rearing Period	4-5 months
Randomly weight	10 fish/cage

3. Fish feed & Feeding

Feed with pellet with 30% of protein twice daily (In the morning & evening) and supplement with fermented fertilizer to be the natural feed in pond.

4. Data collection

During 5 months, the growth rate data of sex reverse tilapia will be randomly collected 20% of those in each cage.

Water Quality Analysis

To analyze the water quality at 08.00 every week such as

- Temperature by thermometer
- Dissolve Oxygen (DO), Hardness, Alkalinity and pH with Test Kit

5. Places

- Yod Po Thong 1 Border Patrol Police School, Bor Pia Sub Distrtic, Ban Kok District, Utaradith Province.
- Tha Arkardsayarn Border Patrol Police School, Mae Salong Ni Subdistric, Cheang Rai Province
- Ban Tha Va School, Sa Aeub Subdistrict, Song Distict, Prae Province.

❖ Conclusion

Growth

Average initial weight	40 g	Average final weight	404 g
Average initial length	8 cm	Average final length	27 cm
Survival rate	96%		
Food Conversion Rate (FCR)	1.20		
Total Production	210 Kg/cage/crop;	Total Production	410 Kg

Water quality analysis

- Dissolved Oxygen 5 mg/L
- pH 7 - 8
- Hardness 80-200 mg/L
- Alkalinity 100-200 mg/L

❖ Recommendations and Suggestions

1. Red Tilapia cage culture enables to maximize the school fish pond production.
2. The proper stocking rate in correlate with pond size would be the further research issue in order to enhance the higher production as well as survival rate.
3. To increase the natural feed by fermented fertilizer in fish pond is recommended.
4. To implement the Red Tilapia cage culture in another potential school would be extended.
5. Post-Harvest, processing and preservation of Red Tilapia production would be practiced for further consumption.

The number of fisheries production: Protein consumption would be 40 g/meal/student

- Catch production in school earthen pond: twice a months, 30 Kg/time,
- Total production: 375 Kg
- Monthly production for consumption 27 g/student/meal

The school's self-sufficiency in livestock production

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❖ The significance of the presenting topic.

Department of Livestock Development has been initiated the project for children and youth development in the remote areas under the Royal Princess Maha Chakri Sirindhorn's since 1995 by promoting small animal raising for school lunch project. The objective is to provide students with adequate dietary protein from eggs, chicken, ducks and pork. And to learn livestock production from hand-on practices in order to obtain the knowledge and skills which are the basis of education and future careers. Promoting livestock activities in the early stages there were problems of the continuation of activities. During the long school holiday time (March) activities in schools had to be stopped and restart everything from the new support from the government at the beginning of new school term (May). This causes schools not to be self-reliant in small animal production activities.

Department of Livestock Development has been considered to provide livestock production system. The primary goal is for school success in livestock activities, schools can breed animals and animal production expanded into household parents. Schools can support themselves; is the source of livestock production knowledge transfer to other schools and the general public and become the protein source for the remote areas.

❖ Implementation/study methods

In 1999, The Department of Livestock Development therefore is promoting animal production systems in the schools by promote to raise layer to provide students with adequate dietary protein. The productivity of livestock activities in schools can be sold to a cooperative of the school lunch program for students to consume adequate nutritious food. The excess amount of produces can be distributed to the community. The income can contribute to a fund for livestock activities of the school for a continuous sustainable animal husbandry and human resource development. The school can be self-reliance base on the sufficiency economy. And select qualifying school with outstanding livestock activities. This can be a model and learning center for other school and in interested people as follows;

1. Schools are requested to set the production target to meet the needs of students throughout the year by calculating the number of students and the number of school days in the year (about 200 days), the amount of meat protein for students aged 6-14 years receiving the 40 g/person/meal with supplemented with dried beans,

25 g/person/meal, in the absence of extra dry beans, meat protein diet is recommended to be 80 g/person/meal.

2. Plan for livestock production by choosing species to suit local conditions. Personnel management by training teachers and students the ability to manage farm animals, housing, feed and feeding, animal epidemic disease prevention, animal product usage and waste management

3. Featuring the production process according to the philosophy of sufficiency economy by selecting species that is well adapted to the areas and can be well propagating. Local feed stuff and animal feed additive can be utilized. Using herb plants to prevent disease is promoted. Waste management is not a problem for the environment and the use of renewable by applying local knowledge in animal production accordingly.

4. Write down the information activities of animal farming accounting, problems in practice in order to know the product they obtain and production costs as instrumental in planning the following year.

5. There are both theoretical and practical teaching activities for students to learn and practice. Students are to be trained for teamwork and responsibility. Transfer of knowledge is from older to younger generations and to the next.

6. Sale of products is through cooperatives of the school. The products are sold to the School Lunch Program for students to be able to consume food adequately. The excess amount of products is to be sold to parents and the community.

7. Extension the results to parents. Promote animal production in households and the community around the school to create food security in the community and incomes and to enhance a positive attitude towards animal production.

Department of Livestock Development has run a selection program for qualifying school with outstanding livestock activities annually during the 2008 -2014 for qualifying school with good practices. They can be examples and study source of other schools. This is for morale support for workers. The selection criteria are as follows:

1. livestock Production Management, Considering the housing, raising supplies and equipment, inputs for animal raising, variety of animal production, a good farm management, farm management recording and records of farm activity data.

2. Efficient Yield Management, considering produce sufficiently for all students, Productivity proper sale amount. A food processing or yield is useful in school activities and manure is to be used properly.

3. The learning process for students is based on the appropriate students' activities in each period, event to have knowledge management in the implementation of the philosophy of sufficiency economy, the participation of students and assessment of student knowledge, and skills.

4. The integration and expansion to the community, considering integrating it with other activities, applying local knowledge in animal husbandry, and the involvement of supervisors, teachers, parents, community.

5. As an outcome of the activities of livestock, considering by students to be healthy and gain knowledge of animal husbandry, attitude towards animal raising. The school is served as a learning center for livestock production for students, community and other interested parties

❖ Results

The result of the promotion of livestock production systems in schools is that schools can produce enough meat protein. (Eggs, chicken, ducks and pork) Most schools can produce eggs for consumption for each student at least three eggs per week and excess amount to sell produce to the community. There is enough capital to run the activity continuously. Many schools can purchase breeding animals and feed, without waiting for government support. Many schools can breed animals and animal production expanded into household parents. Schools can support themselves; is the source of animal production knowledge transfer to other schools and the general public. Every year the selection of school projects initiative of outstanding livestock activities in 8 regions, each with three nomination schools. The eight schools ranking number one from each region are nominated to compete at the national level. The list of schools that have won the championship for the year 2008 - 2014 is as follows.

2008: Border Patrol Police School (BPPS) of Ban Huai Gong, Chanuman District, Amnatchareon Province.

2009: BPPS Ban Nong Doo, Phon Sawan District, Nakhon Phanom Province.

2010: BPPS Siri Rat, Lamae District, Chumpon Province.

2011: BPPS Ban Mae Klong Ki, Umphang District, Tak Province.

2012: BPPS Naresuan Pala Au, Hua Hin, Prachuabkirikhun Province.

2013: BPPS Ban Yung Ngam, Bang Khan District, Nakonsrithammarat Province (under the state primary education commission).

2014: BPPS Memorial Airport Authority of Thailand Maha Chakri Sirindhorn's royal on the occasion of his fourth-round growth of the age April 2, 2003, Mae Fah Luang District. Chiang Rai Province.

❖ **Suggestions / Implications.**

From the analysis of operating results in raising livestock and the school selection of projects under the initiative outstanding livestock activities each year it is found that the factors that affect success for self-sufficient production in the school to support themselves must include knowledge management activities. It was agreed to recommend that the school promote livestock activities. Consider the importance of managing the following areas.

1. Project management; Successful schools have a clear method of management. A committee is set up with defined roles and responsibilities. Students are involved and responsible for all activities. The teachers have a role as a counselor and monitoring.

2. Management of livestock production and productivity; Successful schools have a variety of livestock productions. livestock production is planned appropriately. The project has been designated with an attainable target, the types of animal species and meeting the needs of students. Animal product is managed by distribution through school cooperative system.

3. The management of feed and reduce costs.

3.1 Feed production is by using local raw materials. Students are taught to have hand-on practices is every procedure. The local materials in the area are used to get benefit and to reduce dependence on external, such as banana silage, using dried acacia leaves mixed with rice bran, corn meal, concentration. Silage is made for use in the dry season to reduce costs of animal feed, which is expensive, reducing transportation costs, some of which the school is located in a remote area of the desert.

3.2 planted forage grasses legumes. And be used as animal feed. Adds nutrients Stress helps animals And reduce production costs.

4. Expansion and networking; Successful schools create a network of livestock production to the community by breeding of the school animals to the parents. The outputs from them are to be sold back to schools or expand into other parents.

5. The fund management; Successful schools record small animal farming activities and accounting in an orderly manner with records of income, return and investment. The fund is set up through depositing in bank accounts.. The management of the fund is for livestock activities the next batches. Their business operation is improved by agility, honesty, and transparency and verifiability.

❖ Summarize

Livestock in schools to promote youth development in remote areas. The school aims to yield enough livestock products and be beneficial to student learning and the community, and promote self-reliance and sustainability. The project worker must target production planner The importance of proper management. financing honestly. create a fund ongoing operations and the qualifying schools that perform well as a model of success, exemplary achievements to be extended to other schools. A good example to the general public.

❖ Reference

1. Minutes of small animal development seminars for youth development in the remote areas under the royal Initiatives. The Department of livestock Development 2008-2014.
2. A summary of operating results for school under royal initiative project. National distinguished Livestock activities from 2008 to 2014.

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