

AUGUST 2022



Early Childhood Development in Dolpo

Proposal for passive solar heated ECD centers in Dho Tarap Valley



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Our Story



Typical winter view of Dho Tarap valley, looking towards Dho village from Crystal Mountain School premises (4100 m altitude).



Typical summer/autumn view of Dho Tarap valley, looking towards CMS school premises and Tokyu village further ahead. Students strolling back home after school.

A pioneer in the development sector in Dolpo. Founded in 1993 by Marie-Claire Gentric after being touched by Dolpo during her travel across Nepal the year before, **Action Dolpo** is a French non-profit association whose goal is to "help the underprivileged population of Dolpo and in particular the inhabitants of the Tarap valley, in Nepal; to give the youth of these remote regions the means to study and preserve their rich culture of Tibetan origin"[1]. Action Dolpo currently operates as a primary adviser and funding partner to Vision Dolpo to run majority of our development programs.



Where it all started for many Dolpo-pa.

Founded in 1994 by Action Dolpo, **Crystal Mountain School (CMS)**, is a pioneer in education in Dolpo spurring the growth of similar community based public schools throughout the region. In its initial years, students from outside of Dho-Tarap made CMS their alma mater until schools started getting built in other villages. The school currently runs classes from kindergarten to grade 10, serving about 200 students (majority girls), mostly from Dho-Tarap valley.



For the locals, by the locals. Founded in 2009 by the first alumni of Crystal Mountain School as a local implementation organization to Action Dolpo, **Vision Dolpo** is a social benefit organization dedicated to the Dolpo region. Outside of Action Dolpo, we are now getting support from outside grants and crowdfunding campaigns.

Our mission is to serve the local communities of Dolpo and similar high mountain areas in the Himalayas by primarily ensuring inclusive and quality education and health services for all, by promoting local language, culture and indigenous knowledge, and by enabling better access to sustainable energy and opportunities for local innovation.

EXECUTIVE TEAM



Gyalpo Dolpo
Executive Director



Phurwa Gyaltsen
Secretary



Lhakpa Tsering
Treasurer

Our Programs

CRYSTAL MOUNTAIN SCHOOL

Our flagship program, Crystal Mountain School (CMS) is the first formal school in Upper Dolpo, and for about a decade, the only school in the region serving children from Dho Tarap valley and surrounding villages. Five CMS alumni are now nurses, three are health assistants, one is a lab technician and more are working as teachers, project managers and local leaders in different parts of Dolpo.

A number of CMS alumni currently serve as teachers at the school. Phurwa Gyaltsen manages the program as an alumni serving many years already at the school. He is supported by Bikash Deshar as the Academic Director at the school. CMS has continued its tradition of teaching local language and histories as a supplement to the national curriculum.



Phurwa Gyaltsen
Program Manager



Bikash Deshar
Academic Director



Nyima Dhargey
Senior Primary Teacher



Tsering Dhundup
Tibetan Teacher



Dhargey Gurung
Health Assistant



Karma Sangmo
Health Assistant

DHO TARAP HEALTH POST

Dho Tarap Health Post was started to provide basic health care and awareness to the pupils and the villagers from 2005. It was upgraded to a birthing center when a passive solar house was built in 2009 and a nurse and a health assistant returned to work after completing their studies in 2011 from Kathmandu. A birthing center was fully equipped in 2012 with attached toilet bathrooms and indoor wash basins and a small solar electrification. In 2015, the health post was shifted to a government built health post. Two CMS alumni currently operate the health post and manage all health related programs.

SNOW LEOPARD RESIDENCE

After completing Grade 10, students stay at Snow Leopard Residence (SLR) in Kathmandu for further studies where they live together in a typical Dolpo atmosphere. They go to different schools and colleges during the day.



Lhakpa Tsering
Program Manager

UNDERGRADUATE SUPPORT & FELLOWS PROGRAM

We provide financial support to high school graduates of CMS/SLR to enroll in undergraduate (bachelor's) programs according to their interests. Both living and tuition expenses are covered. Currently over 20 students are continuing their undergraduate education through our support.

Started in 2022, our Fellows program provides these students opportunities to engage in various projects, skilling workshops and mentorship programs.

Why Early Childhood Development?

WHAT IS ECD?

A fundamental right of children enshrined in the Nepal's constitution

Early Childhood Development (ECD) refers to the holistic physical, psychological, and social development of children in their early years, defined in the national ECD framework in Nepal as up to 8 years of age. These early years are important in the psychological, physical and brain development of children, determining success in their future schooling years. During these years, children not only gain important physical and motor skills, but also emergent literacy skills such as phonological awareness, familiarity with print, and basic listening comprehension. Moreover, children enrolling in primary school for the first time are assumed to already have somewhat mastered these skills.

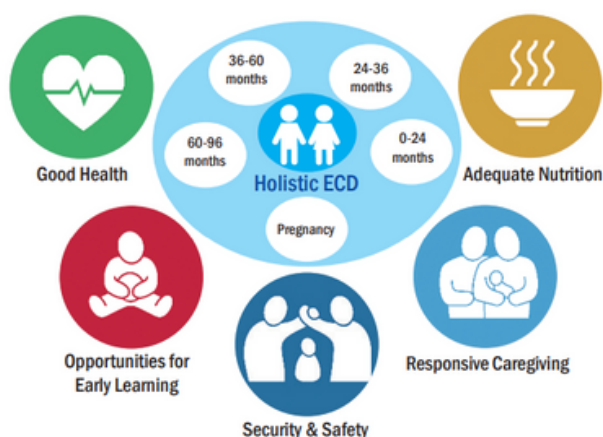


A three-year-old child's brain is twice as active as that of an adult, whereas neurons form new connections at the rate of 700 to 1000 per second. These connections determine children's physical and mental health, their lifelong learning and adaptability to change, and also their psychological resilience.

*National Strategy for Early Childhood Development
2077-2088 B.S.*



COMPONENTS OF HOLISTIC ECD



*National Strategy for Early Childhood Development
2077-2088 B.S.*

STATE OF ECD IN NEPAL

Throughout Nepal, the state of ECD has dramatically improved in recent decades although much remains to be done outside of urban areas, where private schools now typically run Montessori style education. In rural areas that are more accessible, many small ECD centers were built close to the main parent school or integrated into the school, engaging children aged 3-5 years.

A new 10 year strategy for 2077-2088 B.S. has been drafted by the National Planning Commission , which aims to serve mothers and children up to 8 years of age in a holistic manner providing adequate maternal and child health care, nutrition, water and sanitation, day care and early childhood education services in safe environments close to the communities. This has yet to be turned into budgeted programs by the government, but has proven useful as a guideline for our proposed project.

STATE OF ECD IN DOLPO

In remote and high-mountainous regions like Dolpo, providing good nutrition and year round education to young children--many needing to walk long hours from home to school-- is especially challenging. In fact, there are only a handful of ECD centers, most of them being operated within the primary school. For instance, CMS currently runs pre-primary classes through Grade 10.

Our Vision for Dolpo

Our vision is to create safe and engaging all season learning environments for young children aged 2-6 years in Early Childhood Development (ECD) centers in each ward of all rural municipalities in Dolpo) built and operated with locally adapted frameworks under the National Strategy for Early Childhood Development 2077-2088 B.S.

These centers will offer day-care services for children aged 2-3 years, ECD national curriculum (and a local supplementary curriculum) for children aged 4-6 years, as well as provide nutrition, health (including maternal care) and sanitation services for the children and the community members.

The fact that investment in children's holistic development in their early ages yields dividends many more times the investment, has been proven by various studies and research. Likewise, studies have proven that social inequalities have their roots in the formative years of life, whereas ECD programmes directly help in reducing discriminations in society. This underscores the importance of the care, good health, nutrition, and stimulation for children of ECD ages (0-8 years), particularly for those in challenging circumstances and in need of special protection.

*National Strategy for Early Childhood Development
2077-2088 B.S.*

Adhering to sustainable design principles for all facilities within the ECD centers, these centers will be built with passive solar technology adapted to maximize the use of local architecture and building practices enabling the centers to operate throughout the year. Local community members and the local governments will be engaged in the design, construction and operation of the centers.

01	National ECD framework and Localization	<ul style="list-style-type: none">Follow national strategy on early childhood development developed by National Planning Commission, Nepal (2077 - 2088 B.S)Adapt guidelines to develop local supplementary curriculum and learning materials, and train staff
02	Passive solar and earth building	<ul style="list-style-type: none">Natural heating of buildings by direct sunlightOptimal use of available local building materialsLeverage traditional building techniques like rammed earth and stone wall for easy technology transfer
03	Earthquake and climate safety	<ul style="list-style-type: none">Use of reinforced concrete for pillars, wooden beams for resilience against earthquakesRain-proof ceiling to adapt to increased rainfall and other safety features like emergency escape routes
04	Green power and integrated sustainable design	<ul style="list-style-type: none">Infrastructure powered by hybrid solar and wind power stationExplore rainwater harvesting, bio-sand filtration, dry bio-toilets, and all season vegetable greenhousesIntegrate health, sanitation, water, and nutrition programs into design as per national guidelines and local needs
05	Smart and respectful design	<ul style="list-style-type: none">Maximize usability and flexibility for multi-use of spaces with smart building (interior and exterior) and outdoor area designLeverage local architectural and interior design techniques
06	Student and community centered design	<ul style="list-style-type: none">ECD campus to be child friendly, engaging and safeWell equipped day care facilities for young children and community learning center for expecting and young mothersSmart use of space for community workshops for women and children

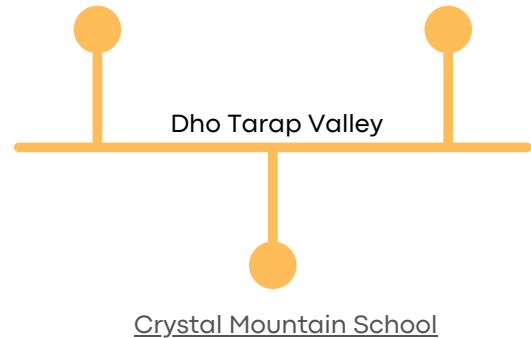
Challenges of ECD in Dho Tarap

ECD IN DHO TARAP

CMS is the only educational institution in Dho Tarap valley, and currently functions as a limited ECD center serving over 100 students below 12 years of age. Located right in the middle of Dho Tarap valley between Dho and Tokyu villages, it can take 1.5 hours or longer to walk to school from the furthest houses in either village. As a result, parents send their children to CMS when they are old enough (7 years or more) to walk themselves.

Dho Village, 3900 m

Tokyu Village, 4200 m



Children are already 7 years or older when they first enroll in school, whereas the national curriculum assumes students will be enrolled in Grade 3 or higher by the time they are 7 years old. They are then placed in pre-primary classes, which have an inadequate number of teaching staff and very few learning resources.

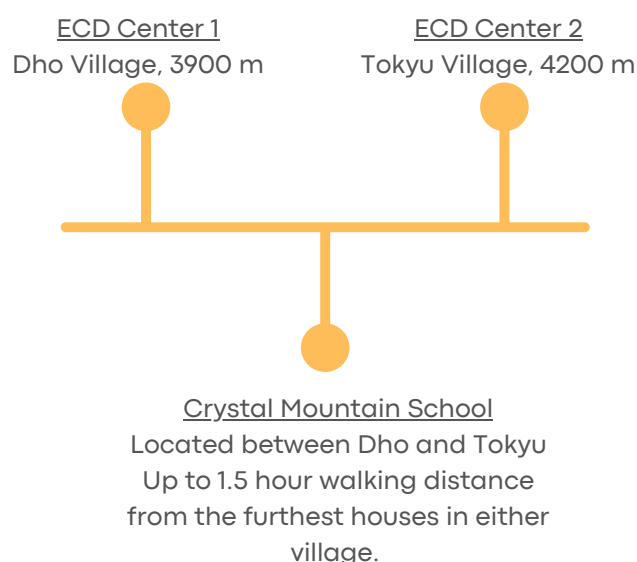
Current ECD classrooms at CMS are inadequate from the children's perspective. Moreover due to lack of direct heating or passive solar heated classrooms and the difficult and long route to the school from the children's' homes in the villages, children are forced to stay idle without schooling at their homes for 6 months out of a year. Currently, CMS is only able to intervene partially by implementing senior student taught classes once every Friday in the winters. These classes are run out of small household greenhouses in the villages where students engage for a couple of hours every week in the winters.



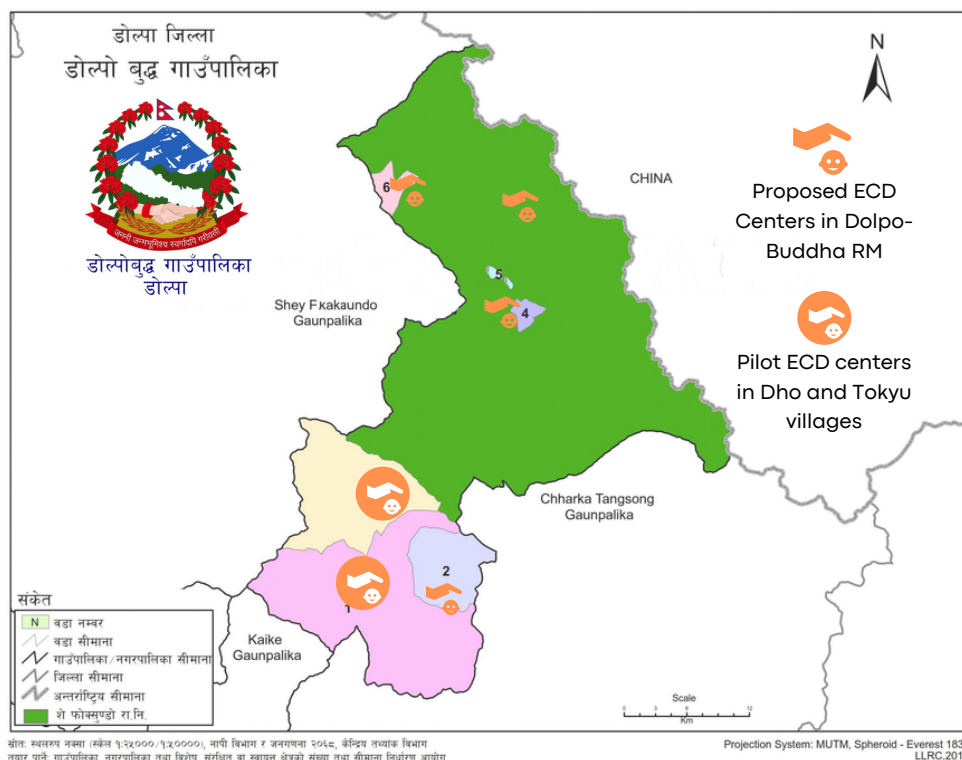
Integrated ECD in Dho Tarap

PROPOSED SITES IN DHO TARAP

Two Integrated ECD centers are proposed to serve the needs of the communities in Dho Tarap valley. With one in Dho village and another in Tokyu village, these centers will serve up to 100 children each, aged up to 8 years at close walking distance from their homes.



CMS campus in the winter. The school can only run winter classes for older students due to distance and extreme weather. The proposed ECD sites in Dho and Taksi will serve pre-primary students from CMS even in the winters ensuring year-long quality ECD programs for children aged 8 years or less.



MAP OF PROPOSED AND FUTURE SITES FOR ECDS

Each ward will house a passive solar heated ECD center to serve local students directly even through the harsh winter months.

This pilot project proposes building two ECD centers in Dho and Taksi villages (wards 1 and 3) to serve students of CMS as well as provide maternal health and day-care services.

Eventually, there could be 15-18 such ECD centers throughout Dolpo including the other two rural municipalities in the region.

Map of Dolpo-Buddha Rural Municipality with its 6 wards with proposed locations of ECD centers.

Program Objectives

OBJECTIVES

- Tackle challenges like 6 month schooling gap during winters for youngest students (from pre-primary to grade 3) that CMS is facing with regards to early childhood development in the Dho-Tarap valley
- Design, build and implement a climate friendly, sustainable and adaptable pilot ECD center in Dho/Tokyu village that runs through the harsh winters as a replicable model suitable to the whole Dolpo region
- Design and implement under the holistic early childhood development framework, National ECD strategy 2077-2088 B.S.
- Empower local government and community members to design, build and operate ECD centers
- Develop ECD centers across Dolpo after monitoring and evaluation of pilot center in partnerships with local governments, community members, and outside partners and donors

LEVEL OF EFFORT FOR DIFFERENT STAKEHOLDERS

Led by Vision Dolpo, this program is a collaborative effort between local communities being served, their local government representatives, and outside partners for expertise in different areas. Overall, 85% of the effort for success of this program is expected to be shared by local communities in Dho Tarap valley, local government and Vision Dolpo.

	 Vision Dolpo	 Local Communities	 Local Government	 Other Partners
Level of Effort	40%	20%	25%	15%
Prime Responsibilities	<ul style="list-style-type: none"> • Conceptualization and program design • Overall management of project and coordination between all parties engaged • Leverage local knowledge using expertise and by engaging local community • Oversee construction and operation of ECD center 	<ul style="list-style-type: none"> • Engage with all parties to build community ownership of the center • Contribute share of construction costs by donating labor and/or resources 	<ul style="list-style-type: none"> • Handle local level administration work including identification and readying of ECD site locations • Contribute share of construction costs • Cover annual operations costs 	<ul style="list-style-type: none"> • Marketing and awareness for fundraising • Technical expertise in sustainability, passive solar, sanitation and hygiene, early childhood education and curriculum development • Implementation of project components based on need

Proposed ECD Design

PILOT IN TOKYU VILLAGE

The first ECD campus— to be piloted in Tokyu village, Dho-Tarap— will be able to cater to 80-100 students until 8 years of age, significantly reducing the burden on Crystal Mountain School for operation of ECD program while inspiring similar initiatives throughout Dolpo. The public land chosen for the campus was based on consultation with community members and local government officials to ensure optimum distance for majority of the houses in the village. The campus adheres to sustainable building design practices (including the use of local resources and building practices), is optimized for earthquake safety and passive heating for continuous operation throughout the winters.



Top view of the proposed ECD center in Tokyu village

The campus design is based on vernacular architecture of Dho Tarap valley and optimized for optimum use of local building materials and building expertise, with careful modifications— to facilitate easy transfer of technology to the local community— for effective passive solar heating and insulation, and floor structure based on needs of campus users and standard design principles for early childhood centers.

INTEGRATED SERVICES FOR HOLISTIC ECD

This center has been designed with a holistic overview of the necessary components for effective early childhood education, suited to the local context and needs. When fully built, the ECD center will provide **maternal care** services to expecting and new mothers, **day care services** to children aged 2-3 years, and **early childhood education** to children aged 4-8 years old. Apart from classrooms, nursing/health area, and day-care area, the center will be equipped with eco-friendly dry compost toilets, solar powered shower, an indoor courtyard, a multi-purpose hall that will also serve as community center in winters, a library, and a digital lab.



Proposed ECD center shown in winter to highlight all-year operation of ECD services for the first time in Dho Tarap

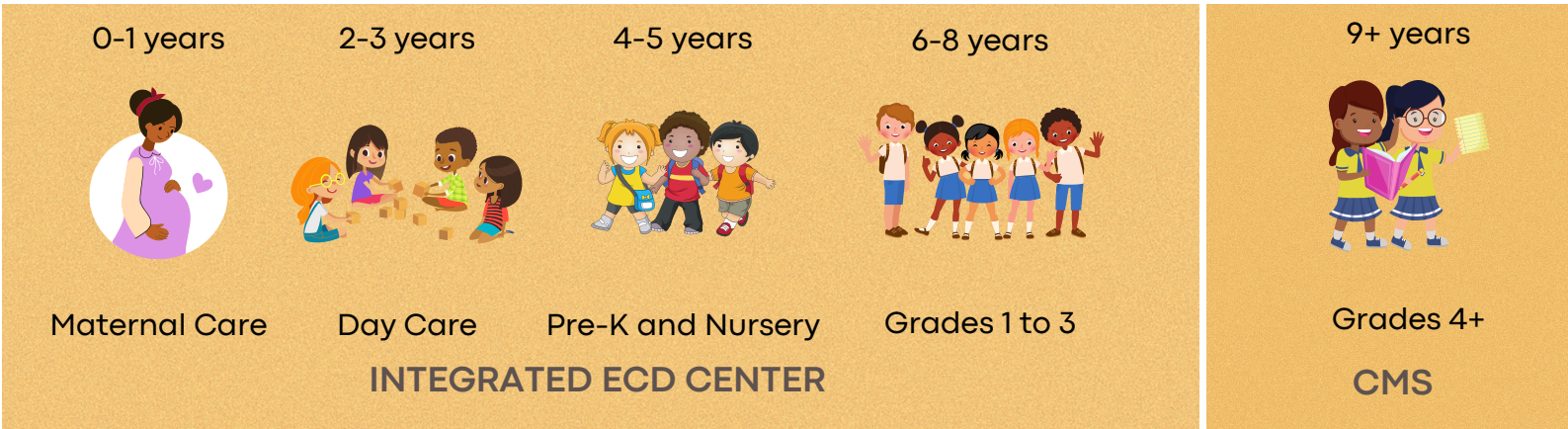
Program Impacts

A REVOLUTION

Proposed ECD program is expected to revolutionize early childhood development in Dho Tarap valley in a number of ways. During implementation and upon completion, Vision Dolpo will be able to:

- 1.Run ECD programs in a safe and child friendly learning environment close to their homes, throughout the year with passive solar heated ECD campus
- 2.Provide maternal care to expecting and new mothers, day care services, and important nutrition, safety, hygiene and sanitation related services
- 3.Engage children in learning and playing during the most important development years
- 4.Reduce burden for CMS in the operation of ECD with inadequate resources
- 5.Develop local curriculum, trainof local teachers, and creation of local employment
- 6.Safe and children friendly learning environment, fit for the whole year (all seasons)
- 7.Transfer of passive solar technology and other innovations in building design to local communities

HOLISTIC EARLY CHILDHOOD DEVELOPMENT



COMPARING CURRENT SCENARIO WITH FUTURE

Current Scenario	With ECD Center
Children at home until age 7/8, without care	Children receive holistic care near home at ages 0-8
Children begin Pre-K at CMS at age 8	Children begin Pre-K at age 4
Children reach Grade 4 at age 13 years	Children begin Grade 4 at CMS at age 9
Children graduate Grade 12 at age 21 years	Children graduate Grade 12 at age 17

Program Calendar and Milestones



Request for support

PHASE 1 OF FIRST ECD CENTER

The construction of the southern wing (Phase 1) will enable operation of essential ECD services for immediate use and testing in Tokyu village. We will then raise funds to construct the northern wing of the ECD campus in Tokyu-- which houses the multipurpose community/ dining hall and an indoor courtyard, as well as the second ECD center in Dho village.

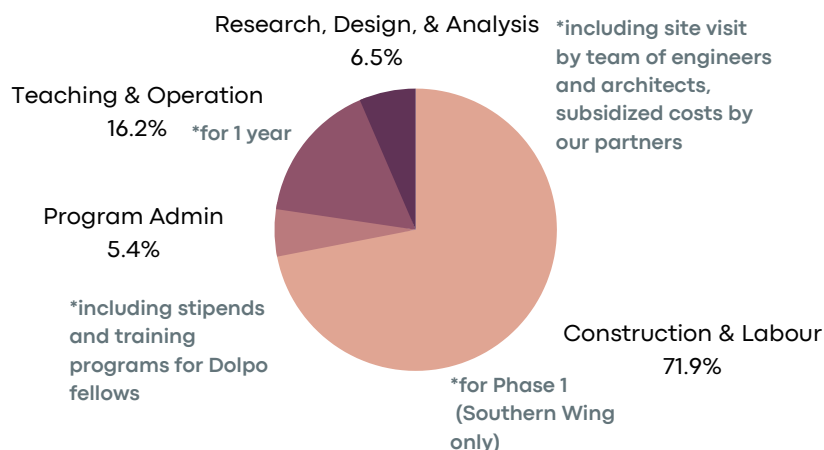
ESTIMATED COSTS

Total projected costs: \$278,000 for Phase 1. The construction costs are based on local market prices in Dho Tarap. Costs do not include estimates for dry eco-toilets, solar/wind power for the campus, or interior design and furnishing.

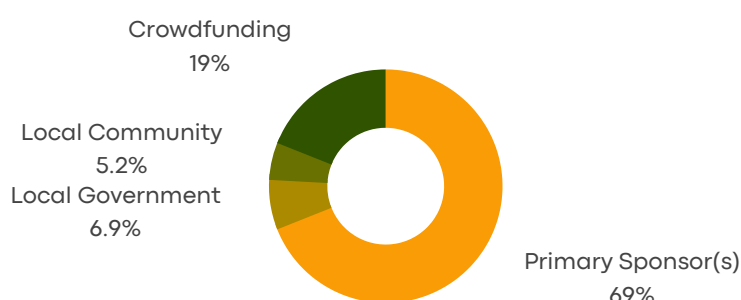
Final projection of costs will be made in Dec 2022 after finalizing detailed drawings of the campus.



GROUND FLOOR PLAN
Built up area : 4637 Sq.ft [430 Sq. m]
Courtyard excluded



RESOURCE TARGETS



REQUEST FOR SUPPORT

We are looking for a primary sponsor to fund the construction costs of the campus. We are also seeking support from partners working in different sectors such as curriculum development, early childhood education, sanitation and hygiene, and solar/wind power to cover costs for different aspects of the project.

For inquiries or feedback, contact us.



To donate online: <https://www.globalgiving.org/projects/passive-solar-earth-classrooms-for-dolpo-children/>



www.visiondolpo.org



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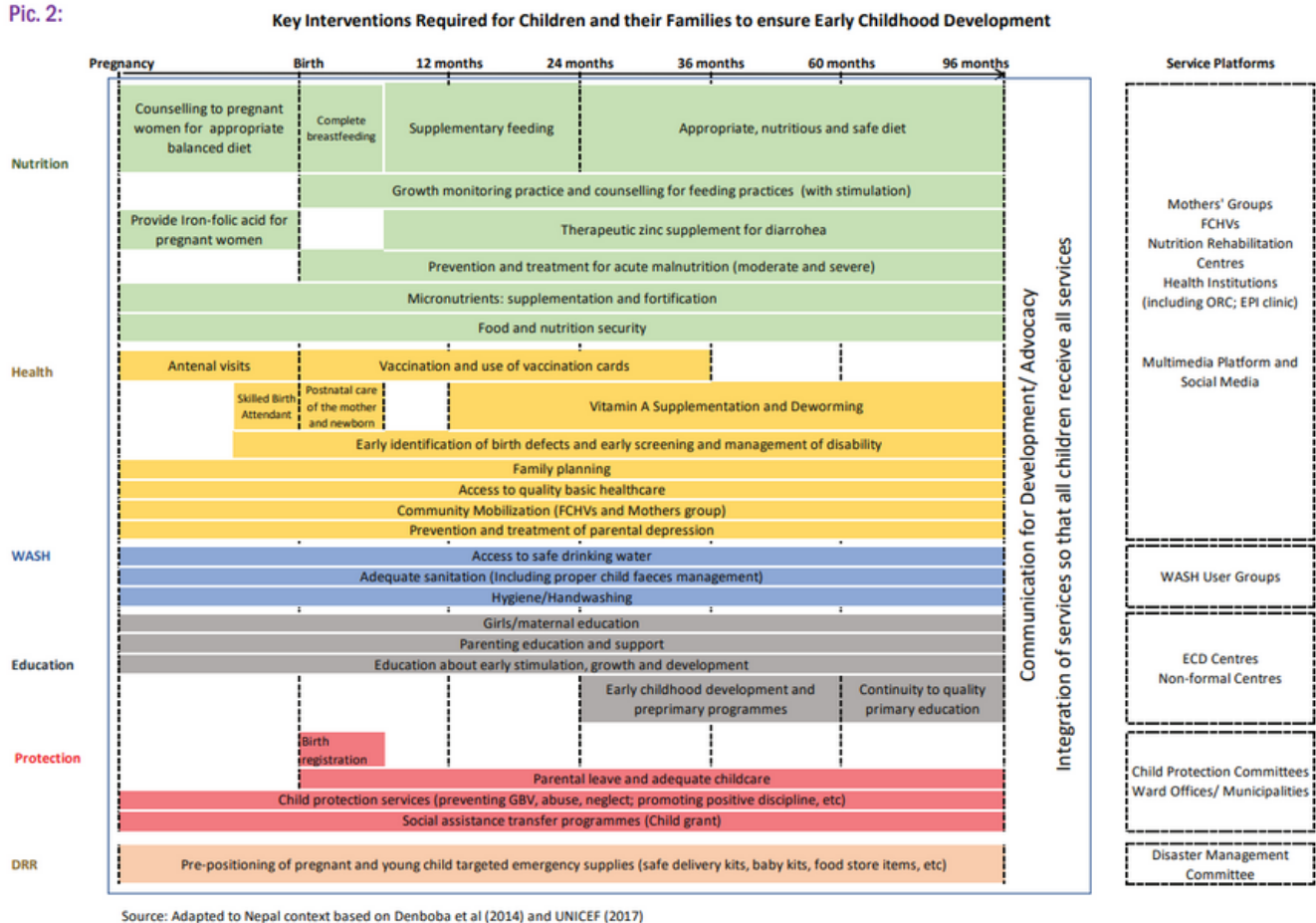


facebook.com/VisionDolpo/



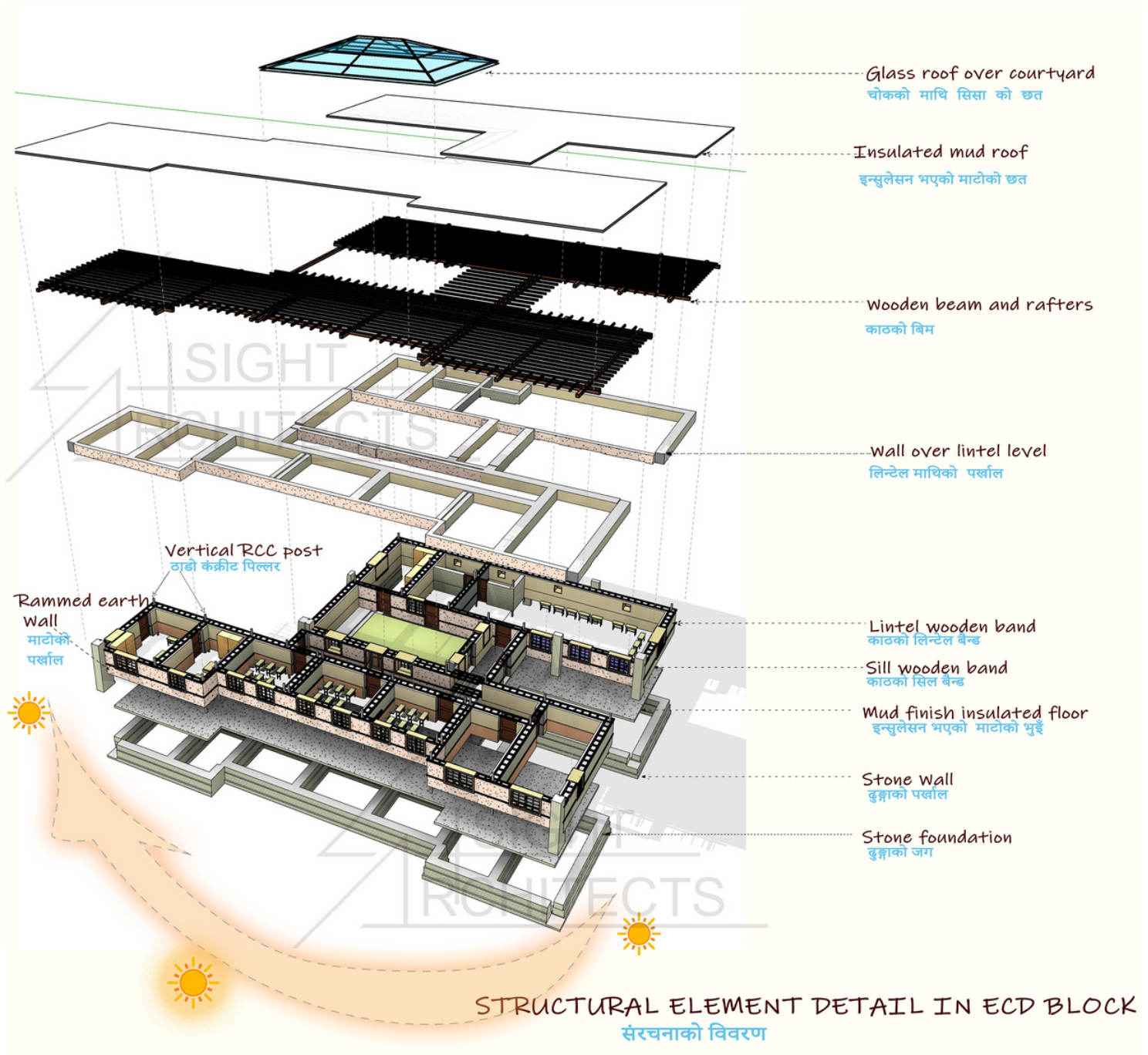
Appendix B: Components of holistic ECD

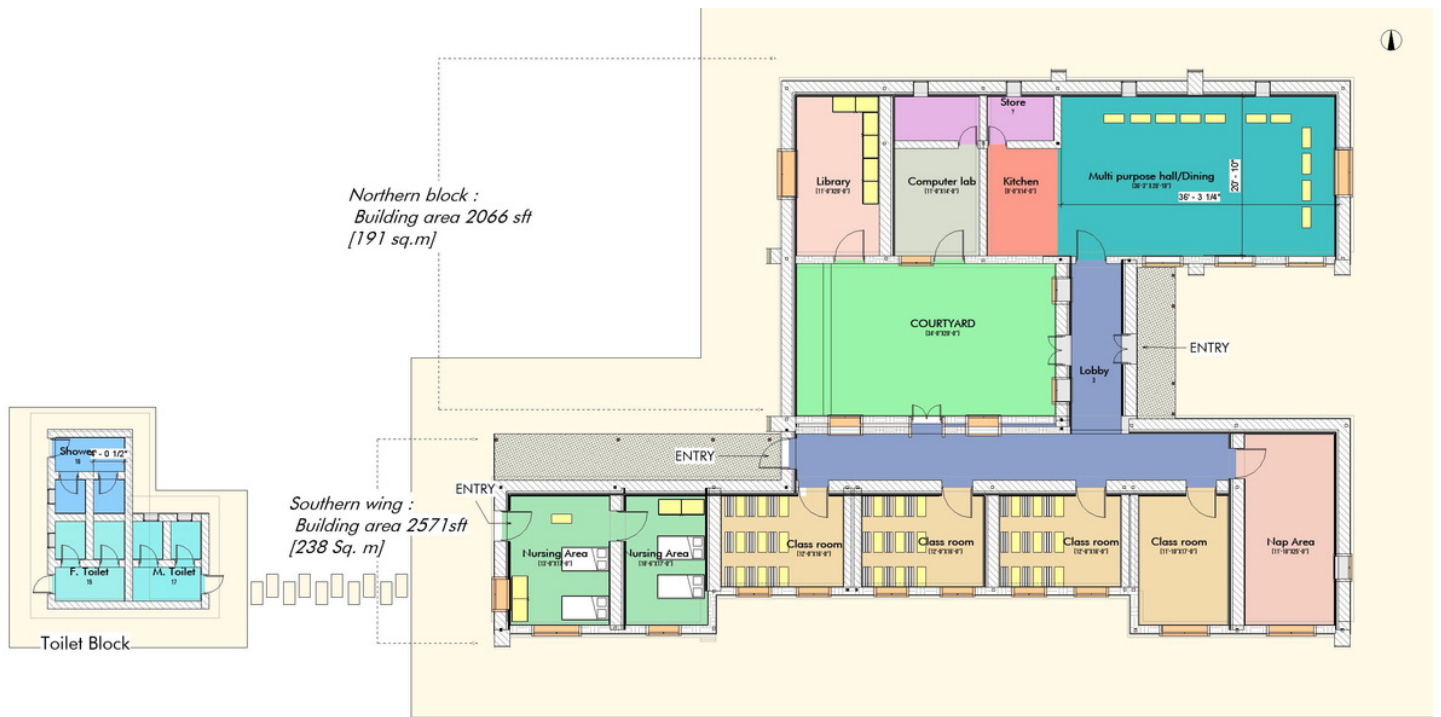
Pic. 2:



In the most recent national strategy, Nepal government envisions a much more holistic approach to early childhood development, integrating nutrition, sanitation and health, disaster response, protection and safety, and education. The scope of the approach has also expanded with care for mothers and integration of pre-primary children of ages 6-8 years, who were previously not benefitting from early childhood development programs. For details, see https://www.npc.gov.np/images/category/ECD_Strategy_2077-88.pdf

Appendix C: Proposed ECD campus design





GROUND FLOOR PLAN
Built up area : 4637 Sq.ft [430 Sq. m]
Courtyard exluded



ECD Block North West view





ECD Block South West view

