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Saving  
the  
Soil

**Noble Gateway's farm is the only vegetable farm in the agriculture village of Hulu Langat which does not use pesticides and chemical fertilisers. Amid the deteriorating soil quality, their neighbours started to adopt the same methods.**

### Plight of small farms

**S**ituated in the southeastern corner of Selangor lies Hulu Langat, a district peppered with small farms and villages along the river and lakes. The homely suburb made waves in the news a year ago due to a devastating flood believed to be caused by deforestation and water surge. Local folks are still haunted by the incident.

Meanwhile, a group of small farmers here now face the threat of deteriorating soil quality of their farmlands; on top of being an aging community.

During a casual conversation we had with the owners of a vegetable farm located upstream of Sungai Makau, they reported that the number of vegetable variants they could produce on their soil has reduced from 10 types to just 3, after farming from the same land for the past decade.

This story is not new to the locals, and many farmers here share the same plight. Although the cause is not a mystery to this group, the term "soil degradation" is a far-fetched concept to the small farmers who rely on their eroded land as the only source of income, and they cannot afford to take the time to discover alternative methods other than to continue relying on age-old conventional farming methods.

### The seed that was planted 4 years ago

Less than a year before the COVID19 pandemic, a group of environmentally-aware entrepreneurs with a vision to establish an eco-village pulled together their resources to secure a 3-acre farmland along Sungai Makau. They called this place the Noble Gateway, and it is one of the many new organisations birthed in Malaysia that strives to build a sustainable community. In fact, Noble Gateway has openly declared to their neighbours that they want to convert the entire village into an eco-village.

"A naive dream, backed with nothing but optimism" – was what the neighbours had thought.

It wasn't long before the entrepreneurs from Noble Gateway understood what their friendly farmer neighbours meant.

"As soon as we became friends with the farmers, they were quick to share their honest

opinions with us," said Joanne Chew, co-founder of Noble Gateway.

"The soil on our land is bad, we lack experience, and we 'rich people' are better off just turning our place into a merry little retirement home."

Their land was barren, composed almost entirely of clay soil that hardens and cracks under hot sun, expands and chokes plant roots during rainy days, and has a pH of 3.5. The first few years became an uphill battle, as the poor soil caused their crops to become vulnerable to the pests that were repelled by neighbouring farms.



Microbiologist Colin Yeo studying the soil condition at Noble Gateway with founders Joanne Chew and Johnny Liew.

"It was truly a test of our faith," said Joanne, "even though we understand that realistically soil rejuvenation takes time, patience, manpower, and a lot of scientific understanding of soil biology."

### As above, so below

Quite miraculously, the once barren land on Noble Gateway has eventually succeeded in growing passion fruits, dragon fruits, the rare red corn with Brix level of 18 (normally at 12 to 15), and 100kg of local vegetables per cycle with minimal pest issues, and without synthetic fertilizers and pesticides.

Rooting their faith in the science of biodynamics, permaculture, and regenerative agriculture practices, the entrepreneurs can finally see the fruit of their labour.

"What you can see here is far from an overnight success," explains Johnny Liew, co-founder of Noble Gateway. "On top of 2 years of trial-and-error collaborating with multiple



parties, we have also been continuously composting and adding organic matter into the clay soil.”

Armed with a vast network of volunteers and science researchers from different backgrounds, the entrepreneurs have managed to rejuvenate the soil and propagate many species of herbs and commercial vegetables. The biodiversity that has returned above and below the earth - vines, trees, shrubs, shrooms, vertebrates and invertebrates - collectively strengthened plant health, making them resistant to pest attacks while producing promising yields.

“As of now, we are the only vegetable farm in the agriculture village of Hulu Langat farming vegetables without pesticides and chemical fertilisers,” continues Johnny. “And we want to bust the myth around here (Sungai Makau) that it is impossible to grow crops without pesticides.”

One of the proven methods of soil rejuvenation on Noble Gateway is through growing plenty of mung beans on the land to sequester nitrogen into the soil, chop-and-drop of cover crops to put carbon onto the soil, and the cultivation of Photosynthetic Bacteria (PSB) to accelerate the biodiversity establishment beneath the soil - all of which are super low-cost methods taught by millennial farmer Gideon Lim, also the founder of Mr. Jagung Merah.

“The soil facilitates nutrient exchange among various plants through a network of fungi and microbes beneath, something like the brain of the land,” Gideon Lim explains. “The use of synthetic chemicals disrupts this relationship but it is possible to restart this healing process with minimal cost.”

### Hope for the land's revival

As a result of Noble Gateway’s continuous preaching about “saving the soil”, some of the neighbours have stopped spraying weedkillers and switched to tree leaves instead. One other neighbouring farm even volunteered to let Noble Gateway condition the soil around a few fruit trees like



1. Visitors touring the farm, where rows of local leafy greens are seen growing healthily on rejuvenated soil.
2. Noble Gateways owes their successes to volunteers and friends who share a common goal in saving the soil.
3. The red corn field in Noble Gateway.
4. Red corn harvested from the corn field in Noble Gateway.
5. Growing legumes like mung beans and various cover crops to sequester nutrients into the soil.
6. Microbiologist Colin Yeo and farmer Gideon Lim having a discussion about Photosynthetic Bacteria (PSB) cultivation - the red solution inside the bottles.
7. Volunteers from Rotary Club of Bukit Bintang have set the right expectations, milestones, and tasks to ensure small wins and measurable outcomes - starting with a consistent commitment to the mission.

mangosteen and durian. Neighbours have turned from being skeptical to being curious, and the Hulu Langat village headmen and board members personally came to endorse the project.

More importantly, at least 20 farmers across Klang Valley have made phone calls to Noble Gateway with intention to visit and learn about their methodologies right after the news was published in a local Chinese newspaper, featuring their collaboration with the Rotary Club of Bukit Bintang on an agriculture education project supported by Rotary International's global grant amounting to RM180,000.

"Even so, we still have encounters with resellers who refused to believe that our crops are farmed without chemicals because they look too nice," Joanne sighs. "But as disheartening as it is, these are the very reasons we have to start raising awareness and educating the community about sustainable farming."

With the understanding that they are in it for the long haul, the entrepreneurs of Noble Gateway collectively agree that to expect a total reformation in a short time is unrealistic and they are currently still in the early stages of turning Hulu Langat into an eco-village.

"However, we believe we have all the right ingredients in place to gain momentum and make a sustainable change to the community," Johnny expresses his hope.

Other than the Rotary Club of Bukit Bintang, big names like Best Environmental Technologies (M) Sdn Bhd, MASMARDI, and The Society PSP Malaysia are also directly involved in the community project "Field of Hope" - Through Agriculture Education. **APR**



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