

KERATAN AKHBAR-AKHBAR TEMPATAN
TARIKH: 13 MAC 2017 (ISNIN)

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Mega

SAINS

APLIKASI I-DENGUE PANTAU WABAK

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SENARIO perkembangan penyakit denggi di seluruh negara sentiasa membimbangkan.

Sehingga awal Mac ini, jumlah dijangkiti penyakit itu mencecah 15,000 kes dengan kes tertinggi dicatatkan di Selangor.

Peningkatan dan kes sebegini bukan sahaja menakutkan tetapi menggerakkan kita untuk melakukan sesuatu bagi meningkatkan tahap kewaspadaan. Malah baru-baru ini Ketua Pengarah Kesihatan, Datuk Dr. Noor Hisham berkata, 40 kematian dicatatkan akibat denggi sepanjang tempoh dari 1 Januari hingga 25 Februari lalu.

Justeru, semua pihak perlu berada pada tahap berjaga-jaga kerana penyakit ini mengancam nyawa tetapi kesedaran sahaja tidak mencukupi, sebaliknya perlu ada usaha tahap tertinggi bagi persediaan menghadapi ancamannya sepanjang masa.

Orang ramai yang terdedah kepada penyakit ini perlu mengambil tahu mereka berisiko dan mengambil langkah berjaga-



AZLIKAMIL NAPIH menunjukkan kemudahan di ibu pejabat Agensi Remote Sensing Malaysia, di Kuala Lumpur baru-baru ini.

jaga termasuklah antaranya membersihkan kawasan daripada 'sarang' denggi.

Kerajaan perlu melakukan sesuatu dan sejak beberapa tahun lepas kemajuan teknologi telah dimanfaatkan dengan pembangunan aplikasi mudah sebagai sumber maklumat dalam mengetahui perkembangan wabak ini setiap masa.

Aplikasi yang dibangunkan itu merupakan kerjasama agensi kerajaan melibatkan

Kementerian Kesihatan dan Kementerian Sains, Teknologi dan Inovasi (MOSTI) menerusi Agensi Remote Sensing Malaysia yang menawarkan teknologi berasaskan penggunaan penderiaan jauh menggunakan satelit.

Agensi berkenaan menawarkan teknologi Sistem Maklumat Geografi (GIS) dan Sistem Penentu Kedudukan Global (GPS) yang dimanfaatkan untuk pembangunan sistem

aplikasi berkenaan.

Menurut Ketua Pengarahnya, **Azlikamil Napih**, pembangunan aplikasi tersebut bertujuan sebagai medium yang memberikan maklumat terkini status denggi di negara ini termasuklah antaranya status taburan kes dan kawasan wabak denggi dikemas kini setiap hari.

Pembangunan aplikasi yang akhirnya dinamakan i-Dengue bermula dengan kaedah konvensional iaitu antara lain petugas terpaksa melukis peta dan dikongsikan dengan pegawai dan kakitangan Kementerian Kesihatan.

"Sebagai penyedia teknologi, kami bekerjasama dengan mengembangkan secara dalaman dengan menggembelng kepakaran sedia ada. Contohnya Kementerian Kesihatan mempunyai doktor dan kita (Remote Sensing) ada pakar remote sensing, GIS dan GPS.

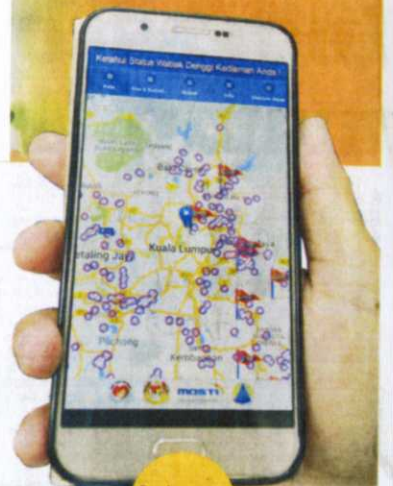
"Kita bangunkan teknologi ini tanpa melibatkan kos yang akan membebankan kerajaan," ujarnya.

Dengan adanya kemudahan tersebut, kita memberi input berguna untuk kemudahan pihak berkuasa dan menghasilkan Sistem Pengurusan Wabak Denggi (SPWD) yang dimulakan

pada 2011 dan dibangunkan menerusi tiga versi dari 2011 hingga 2016.

SPWD membolehkan semua maklumat berkaitan denggi digabungkan dalam satu platform dan wujudlah portal Sistem i-Dengue Untuk Komuniti (i-Dengue). Dua tahun kemudian Mobile i-Dengue dihasilkan dan pada 2016 dalam bentuk aplikasi yang boleh dicapai menerusi sistem operasi android.

Teknologi aplikasi itu membolehkan pelbagai lapisan masyarakat mengetahui kedudukan status denggi, sekaligus dapat membantu mereka merancang persediaan pada tahap yang tinggi.



KERATAN AKHBAR
UTUSAN MALAYSIA (MEGA SAINS) : MUKA SURAT 14
TARIKH : 13 MAC 2017 (ISNIN)

**KANDUNGAN
SISTEM I-DENGUE**

- Memaparkan status terkini jumlah kes dan wabak denggi harian.
- Memaparkan kawasan kluster wabak.
- Memaparkan jumlah kes bulanan mengikut daerah.
- Memaparkan status indeks denggi semasa.
- Menyediakan kemudahan menyemak status dan aktiviti lokaliti.

**KELEBIHAN
I-DENGUE**

- Status denggi terkini secara *real time* (masa sebenar) di lokasi semasa
- Statistik denggi dikemas kini setiap hari.
- Maklumat denggi yang komprehensif.
- Memudahkan masyarakat memberikan input untuk pengurusan wabak denggi menerusi borang aduan atau maklum balas.

**PENGUNAAN
SISTEM
OPERASI (iOS)**

- Apple
- Android



**PEGAWAI
Penyelidik
Agensi Remote
Sensing
Malaysia,
Siti Murni
Umar
menunjukkan
aplikasi
i-Dengue.**

KERATAN AKHBAR
UTUSAN MALAYSIA (MEGA SAINS) : MUKA SURAT 19
TARIKH : 13 MAC 2017 (ISNIN)



ORANG ramai melihat model nyamuk aedes yang dipamerkan pada Program Komuniti Bebas Denggi anjuran MOSTI dan Majlis Perbandaran Subang Jaya (MPSJ) yang pernah diadakan sebelum ini.



PAPARAN antara muka aplikasi i-Dengue.

Inovasi hasil kejayaan NBOS

KEJAYAAN pembangunan aplikasi i-Dengue boleh diterjemahkan sebagai kejayaan kerajaan dalam memperkenalkan konsep Strategi Lautan Biru Kebangsaan (NBOS) melibatkan agensi dan jabatan serta kementerian.

Kepakaran mereka digembleng bagi menghasilkan inovasi yang dapat membantu menyelesaikan masalah rakyat. Justeru kepakaran dan kemudahan yang mereka miliki digunakan sebaiknya untuk faedah rakyat.

Sebagai contoh, aplikasi mudah alih i-Dengue yang memanfaatkan semua teknologi berkaitan

membolehkannya menjadi platform maklumat yang mudah untuk kegunaan orang ramai.

Pembangunan inovasi berkenaan juga boleh dianggap satu anjakan paradigma minda rakyat daripada terlalu bergantung kepada kerajaan dalam menangani wabak denggi kepada kesedaran untuk berganding bahu bersama kerajaan membanterasnya hingga ke akar umbi.

Sebagai rekod, kejayaan ini menyusul selepas sebuah syarikat tempatan, New Wave Communications Sdn. Bhd., membangunkan aplikasi *Kil-*

Dengue iaitu sebuah aplikasi yang direka khas untuk menghalau nyamuk *Aedes aegypti*.

Aplikasi itu dibangunkan dan berfungsi dengan mengeluarkan gelombang bunyi yang berupaya menghalau nyamuk dan telah diuji keberkesannya oleh Institut Penyelidikan Perubatan (IMR), Kementerian Kesihatan.

Aplikasi tersebut dikatakan berupaya menghalau lebih 75 peratus nyamuk *Aedes aegypti* yang membawa virus denggi.

Meskipun teknologi tersebut bukanlah sesuatu yang baru dan dibangunkan dalam tempoh tiga tahun setelah diubah suai

daripada teknologi sedia ada di Korea, sekurang-kurangnya ia merupakan satu inisiatif membantu membanteras masalah denggi di negara ini.

Aplikasi tersebut berfungsi dengan mengeluarkan frekuensi yang sama dengan pukulan sayap nyamuk aedes jantan. Nyamuk aedes betina pula menyebarkan virus denggi dengan gigitan.

Walaupun bagaimanapun, keduanya hanya menghisap darah manusia setelah melakukan persenyawaan untuk mendapatkan protein darah manusia bagi tumbesaran telur dalam tubuh mereka.

KERATAN AKHBAR
HARIAN METRO (SETEMPAT) : MUKA SURAT 24
TARIKH : 13 MAC 2017 (ISNIN)

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Kuala Lumpur

Mula meminati bidang astronomi sejak sekolah rendah serta menjadikan filem Armageddon dan Apollo 13 sebagai cetusan inspirasi untuk menjadi saintis dalam bidang astronomi dan astrofizik.

Siapa sangka penuntut ijazah kedoktoran (PhD) dalam bidang astrofizik di Pusat Astronomi Ekstragalaktik, Jabatan Fizik, Universiti Durham, United Kingdom ini mengharumkan nama Malaysia di persada antarabangsa dengan penemuan 'Supermassive Black Holes' (lohong hitam supermasif).

Saintis muda, Nur Adlyka Ainul Annuar, 27, juga antara saintis teleskop X-ray terbaru National Aeronautics and Space Administration (NASA) di USA yang dinamakan NuSTAR (Nuclear Spectroscopic Telescope Array) sejak 2014.

Nur Adlyka berkata, dia sangat berbesar hati dan menghargai tajaan kerajaan sepanjang menuntut ilmu sains dan teknologi di luar negara sejak 2008 sehingga menjadi saintis muda berjaya.

"Saya berharap kejayaan kecil saya dapat menyuntik semangat dan memberi inspirasi kepada saintis muda di tanah air."

"Semoga pencapaian saya ini memberi inspirasi kepada anak muda negara kita untuk menceburi astronomi dan astrofizik iaitu bi-

Pengkaji lohong hitam

■ Nur Adlyka berharap kejayaan kecil beri inspirasi kepada saintis muda negara ceburi bidang astronomi dan astrofizik



SAINTIS muda, Nur Adlyka Ainul Annuar.



dang yang sering dianggap terlalu umum," katanya ketika dihubungi.

Menurut anak kedua daripada empat beradik itu, dia percaya dengan bantuan serta tajaan kerajaan, saintis muda tanah air mampu bekerjasama membangunkan bidang sains dalam negara setanding dengan pencapaian lain di mata dunia.

Katanya, kini dia berada di bawah penyeliaan profesor astronomi, Prof David Alexander di Universiti Durham dalam membuat penyelidikan lohong hitam supermasif aktif di alam semesta.

"Lohong hitam supermasif adalah lohong hitam yang sekurang-kurangnya sejuta kali lebih berat daripada matahari dan aktif 'memakan' benda dan objek di sekelilingnya."

"Oleh itu, penyelidikan saya memberi tumpuan khusus untuk mencari lohong hitam supermasif ini yang bersembunyi dari pandangan kita kerana dilindungi oleh gas dan habuk tebal," katanya.

Menurutnya, kejayaannya menjejak lohong hitam menggunakan NuSTAR ada-

lah pencapaian terbesar yang menjadi sejarah baru buat saintis di peringkat antarabangsa.

"Mencari lohong hitam tersembunyi sangat penting untuk membantu kita memahami bagaimana lohong hitam di alam semesta mengembang dan kesan kepada galaksi yang kita duki."

"Saya juga ketua penyelidik satu daripada dua lohong hitam tersembunyi yang dijumpai berdekatan galaksi."

"Lohong hitam berkenaan berada di tengah galaksi NGC 1448 iaitu berada dalam jarak 38 juta tahun cahaya daripada galaksi kita," kata anak jati Muar, Johor itu.

Menurutnya, disebabkan saiz alam semesta sangat besar, jarak itu dikira sangat dekat bagi pemerhatian saintis astronomi.

Dia juga berharap pencapaiannya memberi inspirasi kepada anak muda negara ini untuk menceburi astronomi dan astrofizik iaitu bidang yang sering dianggap terlalu umum.

"Saya percaya dengan

bantuan serta tajaan kerajaan, saintis muda tanah air mampu bekerjasama membangunkan bidang sains dalam negara setanding dengan pencapaian lain di mata dunia."

"Selain kejayaan saya, pencapaian saintis tempatan yang lain juga dapat membuktikan bahawa bidang sains, teknologi dan inovasi (STTI) di Malaysia mampu mencipta nama di peringkat antarabangsa," katanya.

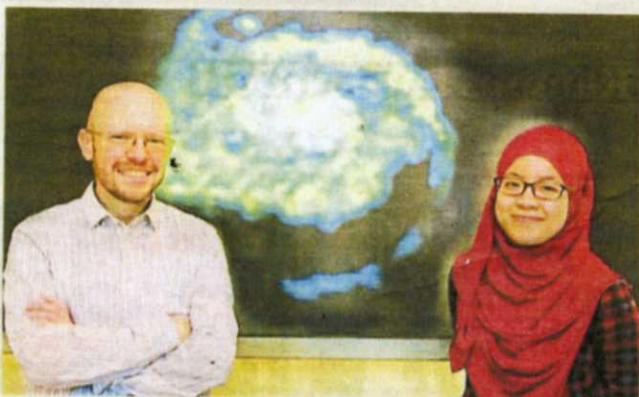
Pencapaian istimewa Nur Adlyka turut mendapat perhatian Timbalan Menteri Sains, Teknologi dan Inovasi (MOSTI) Datuk Dr Abu Bakar Mohamad. Diah ketika sidang Dewan Rakyat minggu lalu.

Beliau berkata, pencapaian Nur Adlyka mengagumkan dan membuktikan pelajaran tajaan kerajaan berwujud dan mampu melonjakkan bidang STTI negara ke tahap lebih tinggi.

"Kerajaan sentiasa memberi pengiktirafan terhadap pencapaian saintis muda bagi menghargai sumbangan mereka kepada bidang Sains dan Teknologi negara," katanya.

FAKTA

Kejayaan jejak lohong hitam guna NuSTAR adalah pencapaian terbesar buat saintis di peringkat antarabangsa



NUR Adlyka (kanan) bersama Prof Alexander di Universiti Durham.

Spurring inclusive innovation

BY JENNIFER JACOBS

The High Impact Programme 6 provides funding for what is known as "Inclusive innovation", or innovation aimed at improving the lives of the bottom 40%. The programme, which comes under the auspices of Yayasan Inovasi Malaysia (YIM), helps the economically disadvantaged to participate in the economy and increase their productivity and income.

Programme director Abdul Razak Ahmad tells *Unlisted & Unlimited* that HIP 6, which is entering its second year, is not about handouts or subsidies. It is about encouraging those at the bottom of the pyramid by providing them with the appropriate enablers to participate in the economy and thus, gain more income and move up the economic ladder. It is also about helping them participate in the fruits of the economy of an almost-developed nation.

HIP 6 is a part of the SME Masterplan 2012-2020, which lists six significant high-impact programmes to be undertaken. "Each programme serves a different purpose. But ultimately, the goal is to bring the smallest SME from the start-up phase all the way to exporting its products and services," he says.

Abdul Razak adds that Malaysia decided to add "Inclusive innovation" to its list of high-impact programmes because the country was found to have one of the largest gaps between the haves and the have-nots in the region.

"The World Bank, which was the consultant for the SME Masterplan, discovered that Malaysia has one of the largest Gini co-efficients in the region," he says. The Gini co-efficient refers to the degree of variation or inequality between various groups in a particular economy.

"What this says is that despite our efforts [to shrink the gap between the haves and the have-nots], there is an access gap. And if you allow this gap to grow, we may have social problems," he adds.

Therefore, HIP 6 is all about identifying and developing affordable, high-quality innovation and making it accessible to the target groups. "The first thing we did was to identify the recurring or common problems, especially for the rural or urban poor. When I say excluded groups — be it single

mothers, OKUs (the disabled) or disenfranchised youth — poverty is the common factor," says Abdul Razak.

YIM was appointed the lead agency for HIP 6 because it had been heavily involved with the grassroots community since 2010. YIM is a foundation limited by guarantee established by the Ministry of Science, Technology and Innovation to promote and inculcate a culture of innovation among the grassroots community.

Abdul Razak, an entrepreneur in his own right, has been with YIM since it started the programme in 2015. "Inclusive innovation is all about bringing innovation, whether it is from the outside or within the community itself, and making it affordable and accessible to the target groups," he says.

Basically, there are three models that he looks at when considering applications for funding or help with innovations — the innovator-entrepreneur, licensing and community-enablement models.

"For the innovator-entrepreneur model, the entrepreneur comes in and says, 'This is my innovation and I would like to promote the technology as my own, so I am selling it to whoever wants it.' This is not a subsidy. The whole idea is that the innovator-entrepreneur is motivated to set up a company and sell the product," says Abdul Razak.

"We also help on the pre-commercialisation side. Anyone with intellectual property (IP) can come in and say, 'I think I have an innovation that can solve some of the community's problems or some problems of excluded groups.' We will evaluate the merit of those innovations and market potential."

Basically, every idea has to go through a QATOS evaluation — it must be equal or better than the status quo, affordable, targeted at the right groups, have sufficient outreach and the business built around it must be sustainable.

"First, we look to see if the innovation is equal or better than existing innovations. For example, if you come to me and say you have what Samsung has at a fraction of the cost, that idea would be good enough. I do not need an expensive phone. I just need an access device I can repurpose into an educational access device for people to use," he says.

"I can even introduce an instalment plan where you pay RM20 to RM30 a month for the next six months, so you can get it for a small price. That is the kind of thinking I am talking about."

Because of who the target group is, any product or service has to be affordable. "It has to cost a fraction of what is available out there," says Abdul Razak.

It also has to be targeted. "We are not doing this for the rich or the mass market. We are doing this specifically to address the needs of the target group, which can be chronically ill patients, senior citizens, single mothers or indigenous groups. The idea is not to provide inferior products expensively to these people because they will just reject them outright," he says.

The entrepreneurs must also be able to figure out how they intend to reach their target market. "Even if I am introducing the world's cheapest tablet, if I cannot distribute it, there is no point because that means the people I am targeting it at still cannot benefit from the innovation," says Abdul Razak.

Finally, the entrepreneur must figure out a way to make the business sustainable. "We cannot afford to keep giving handouts. So, whatever we fund must be sustainable. We hope what we are giving is enough to kick-start a sustainable venture," he says.

YIM will provide up to RM200,000 to those who qualify as innovator-entrepreneurs to assist them in areas such as IP filing, industrial design, finding the right partners and marketing. "We do not take ownership of the IP. It is filed under the entrepreneur's name. In fact, they are surprised when we ask them to file for IP. Kampung folk have always shared everything from the goodness of their hearts. They do not do it because they want recognition, so they do not even know the value of IP," says Abdul Razak.

He adds that those in the grassroots community are naturally generous and have no notion of holding back. "They just talk and talk. So, if you were one of those people who wanted to steal the idea, you could easily do that. They would even teach you how," he laughs.

While that may seem admirable, Abdul Razak points out that it has adverse implications. "In the real world, it means they will get ripped off — left, right and centre. But what we are saying is that in the future, there might be an opportunity for someone else to take the IP, license it and do greater things with it, right? That is why we encourage the entrepreneurs to file for IP," he says.

YIM also helps the innovator-entrepreneurs with industrial design to improve their prototypes and make them market-ready. "Say you come to us with a prototype of something that works but looks downright ugly. It is something we know the market will reject even though it is fully functional," says Abdul Razak.

YIM then looks for partners and fabricators in its network and pays them to produce a better version of the product. "The whole idea is to improve the capability of the innovation to the point where it is very close to being market-ready," he says.

The foundation also helps with product testing. "Say you come up with a water filter. I cannot take you at your word that the water is safe. I will not drink a drop until the filter has been fully tested and I know that the water is safe

to drink," says Abdul Razak.

"Someone needs to test the water that comes out of the filter. So, we actually do that. We pay for the testing and also help with the SIRIM certification."

The money YIM provides is not equally weighted for every innovator-entrepreneur. After the foundation has assessed your idea, it decides where you most need funding.

"Some innovators, for example, come to us with products that are mature. They just do not have the budget for marketing. So, we help them with that, whether it is for social media expenses, buying certain keywords, setting up a website or printing marketing brochures and pamphlets," says Abdul Razak.

The second way it helps entrepreneurs is through its licensing model. "The fund for this model is not that big — the cap is about RM50,000. The idea is that we can help them improve the product so that it becomes a market-ready prototype. We also help with the licensing agreement," he says.

"This is the typical model for innovators who come from universities and colleges [rather than the community itself]. They spend a lot of time thinking and coming up with solutions to common problems."

The third way the foundation helps is with its community-enablement model, which also has a RM50,000 cap. "Sometimes, people come up with an innovation that has a clear benefit but we are just not convinced about the sustainability of the idea. Nevertheless, we do not feel that we should deprive the community of the innovation. This model is about helping the community," says Abdul Razak.

YIM used this model to fund a volvariella mushroom project. "These guys came to us through one of the challenges we run and asked, 'What if we could increase the income of rubber tappers by RM500 to RM1,000 a month even when commodity prices drop?' Naturally, we were interested," he says.

"These guys have developed a technique to grow volvariella mushrooms in rubber estates. They developed it over time and through trial and error by using plant waste material. They pile up the husks and waste matter, put some fertilizer, then plant the mushroom seeds in these piles and cover it up. In two to three weeks, the mushrooms can be harvested. And because they are selling them at a premium, they can make RM200 to RM300 per row [of mushrooms]."

Why rubber plantations? Abdul Razak says the promoters of this idea found that it would not work in oil palm plantations because the soil is not fertile enough and there is not enough sunlight hitting the ground as the trees are planted too close together. Rubber trees are planted more sparsely, so there is enough sunlight and moisture.

"Obviously, a lot of thought went into this. The whole idea is that they want the planters to grow the mushrooms, which they will help sell. If enough of a community plants the mushrooms, they will have enough volume and can make some real money," he says.

YIM helps with the marketing. "At the moment, we are selling to the mom-and-pop shops which, in turn, sell to the cooperative so they can make *cendawan goreng* (fried mushrooms) or whatever else they want," says Abdul Razak.

“We are not doing this for the rich or the mass market. We are doing this specifically to address the needs of the target group, which can be chronically ill patients, senior citizens, single mothers or indigenous groups.
> Abdul Razak



KERATAN AKHBAR

THE EDGE MALAYSIA (FINANCE) : MUKA SURAT UU11

TARIKH : 13 MAC 2017 (ISNIN)



SCHOOL GARDENER DEVELOPS MINI-HYDRO SYSTEM FROM SCRAPS

● Hamid Jasmin is one of the earlier innovator-entrepreneurs discovered by Yayasan Inovasi Malaysia (YIM). Living deep in the mountains of Tambunan, Sabah, this school gardener and village head used scraps and recycled materials to develop a mini-hydro system to power his village.

Hamid was not only able to build the system at a fraction of what it cost in the market but also improve on what was available. "Rivers are not good for the turbine because the speed of the water is not constant, which messes up the system," says Abdul Razak Ahmad, programme director of YIM's High Impact Programme 6 (HIP 6).

Hamid had fashioned his system with a used gearbox from a truck and employed it in a novel way — to monitor the speed of the stream and regulate the speed of a used dynamo that generates enough electricity for 20 houses in his village.

Before this, the villagers used dynamos that could only run for seven hours a day. The diesel alone cost RM300 to RM400 a month. To save diesel, they would turn it off early. This meant they lost two to three hours that could have been used for work or study (meaning a drop in productivity).

Because of his tinkering and modifications, Hamid's design is more

robust and reliable than many industry-grade dynamos. And because he developed it on-site, he was able to modify it according to the actual river conditions, says Abdul Razak.

YIM provided the funding to help him develop the system. "A turbine system typically costs RM100,000 to RM200,000 just to produce 50kW. His system — if you add up the total installation costs, cement, hut and everything else — is less than RM50,000. So, that is a fraction of the cost of a regular system. And it is powering 15 to 20 households," he says.

Abdul Razak points out that Hamid is a gardener with a secondary school education. "The point is that inspiration is everywhere. You do not have to be a rocket scientist to figure out the turbine system. And we see a lot of these — innovators who are inspired to transform their community."

He adds that YIM is trying to distribute this system to as many villages as it can. "In Sabah and Sarawak, easily 20% to 25% of the population still do not have access to utilities because they live in remote areas."

"They cannot be connected to the grid because they would need to pull the wires pretty far and there is a lot of transmission loss. And if they live in a mountainous area, they are subjected to heavy winds and rainfall, and something may happen to the line. So, renewable energy is the answer."

PADI THRESHER THAT DOES THE WORK OF FIVE

● Siteo Akang is a farmer from Keningau, Sabah, who developed a padi-threshing machine that can replace five labourers. Large tractors are not suitable for small padi plantations. So, most of the time, they have to employ labourers to manually thresh the padi.

Siteo's machine requires only one person to operate and it is able to thresh padi up to 10 times faster than four draft animals. "You just put the harvested padi into the machine and it separates the rice from the husks. And it is powered only by a small diesel engine," says Abdul Razak Ahmad, programme director of Yayasan Inovasi Malaysia's High Impact Programme 6.

The machine can also be used to thresh moist crop. It is able to retain the complete rice straw instead of chopping it. The straw, grains and chaff are separated automatically with a blower, which reduces the labour required.

Abdul Razak says a version of this machine from China costs RM4,000 to RM5,000. "But this machine costs a little over RM2,000, which is at least half the price. We are now helping Siteo by engaging with Lembaga Peladang to offer his product at a discount or subsidised price. They are buying this machine from China anyway and now they can get a local substitute for a fraction of the price."



Hamid used scraps and recycled materials to develop a mini-hydro system to power his village

PINEAPPLE SEEDER THAT INCREASES PRODUCTIVITY TENFOLD

● Sopa Yahya, a retired military man, has developed a machine to help him plant pineapple seeds — a wheelbarrow pineapple transporter and a precision spot-on-fertiliser dispenser. He built these labour-saving devices using only discarded parts.

"The conventional way is to poke a stick into the ground and put in the seed, which requires a lot of manual labour," says Abdul Razak Ahmad, programme director of Yayasan Inovasi Malaysia's High Impact Programme 6.

The pineapple seeder can be adjusted for different types of plants. "What he did was create a diesel-powered seeder. As it rolls, it creates two holes that are a uniform distance apart and consistent depth. Sopa, who endured 17 years of back-breaking manual labour to plant seeds, swears by it," says Abdul Razak.

He is a pineapple planter and he says the machine increases his productivity tenfold. He is selling it for RM7,000 to RM8,000 and other planters are willing to pay the amount, especially since the machine reduces the time taken by a factor of three.

He adds that pineapple planters typically spend RM20,000 a year on machinery and equipment. "So, what is RM7,000?"

"We work with non-governmental organisations and associations. Sometimes they say, 'One of our members has a great idea. Can you look into it?' So, we get them to submit the idea for assessment and evaluation. If we think the idea is good, we bring it to the steering committee," says Abdul Razak.

As YIM only handles pre-commercialisation, the entrepreneurs who graduate from HIP 6 can turn to other government programmes for further assistance. "We do not work in silos. We work with PlatCOM Ventures Sdn Bhd (the national technology commercialisation platform) and SME Corp. Once they graduate, they can either move up to PlatCOM, go back to SME Corp or stand on their own," says Abdul Razak.

Most of the innovators it took on last year will graduate this or next month. "When the opportunity arises, we do linkages for them. The whole idea is to get the ball rolling," he says.

Last year alone, YIM awarded grants totalling RM3 million to RM4 million to 24 projects under HIP 6. It had an approved budget of RM6.5 million, but it did not receive all the money because of government funding constraints. This year, it has an approved budget of RM5 million.

"At this point, we certainly need some money for operating expenses. But we are hoping that when we start diffusing these projects as community projects, we can get a lot more support from the corporate sector. I have been building up a network with the likes of the Malaysian Global Innovation and Creativity Centre (MaGIC) and other social enterprises," says Abdul Razak.

YIM uses several ways to source for innovations. One is the walk-in. "You can just go to our website and sign up to share with us your idea or prototype that you think will benefit the community. But we advise you to read the terms and conditions and understand

what we are trying to solve. We get a lot of cockamamie ideas which people feel solve a lot of problems, but are not the core problems we are trying to address," he says.

What are these core problems? "Firstly, utilities. This means renewable energy and clean drinking water, access to healthcare, innovations that help increase productivity and access to education," says Abdul Razak.

YIM also holds challenges or Cabaran to source for innovations. The ones who typically apply for these are college and university students.

"We have Cabaran covering six zones — North, East Coast, South, Central, Sabah and Sarawak. We promote this idea and we brief the local universities. Usually, they respond by submitting applications," he says.

"So, we have different categories of applications from the public to government agencies to institutions of higher education. The ideas will be

judged based on QATOS and how inclusive they are."

The challenges follow a simple format. "Once you apply, the window closes and the application is processed with the help of our subject-matter experts. They put the scores into an online assessment form and we tabulate and average out the higher scores. Then, we invite the top 20 or so of each category to present their idea. The pitch is seven minutes followed by three minutes of Q&A," says Abdul Razak.

YIM selects the top three from each category and, depending on the priority, puts them on a list for further due diligence and pitches them to the steering committee. The steering committee either approves, rejects or puts the ideas on the back-burner due to a lack of information.

This year, the foundation plans to run a challenge about every two months. It is also on the lookout for referrals from its grassroots network.

KERATAN AKHBAR
MALAY MAIL (MONEY) : MUKA SURAT 36
TARIKH : 13 MAC 2017 (ISNIN)

Kenanga signs MoU with Mimos

KUALA LUMPUR — Kenanga Investment Bank Bhd (Kenanga) last week announced that it had signed a Memorandum of Understanding with Mimos Bhd to promote and advance fintech in Malaysia.

The bank is the first investment bank in the country to collaborate with Mimos on efforts to design, develop and commercialise homegrown technology, in areas of information security and intelligent informatics for capital markets.

This collaboration is a platform to accelerate knowledge exchange, proof-of-concept projects, field testing

and training between both parties. It is an opportunity to develop viable and innovative fintech products for the investment banking space.

Group managing director Datuk Chay Wai Leong said: "With Mimos' state-of-the-art lab, experience talents and over 1,000 patents across various technology domains, it has been spearheading innovations through high impact projects in Malaysia.

"We hope this collaboration will pool together Kenanga's knowledge of the capital markets and the technological expertise of Mimos to develop products that will

benefit the local investment banking scene," he said.

Mimos president and chief executive officer Datuk Abdul Wahab Abdullah said: "Fintech is disrupting the financial services sector in a big way, and the technology looks set to continue to change the way customers look at the financial institutions."

"The collaboration with Kenanga will spur value creation in the sector by bringing together the group's proven strengths in market knowledge with Mimos' frontier technology research and expanding expertise in data analytics," he said.