

# 農業開発研究会報 第 4 号

## Python 解説書の発行

フィールドサーバや AMeDAS のデータは 10 分間隔でデータを蓄積します。なぜ 10 分間隔なのか、あまり考えずにいました。定時通信のテクニカルな問題、気象情報の需要……。とにかく蓄積したデータをどう管理するか、どう役立てるか？ 1970 年代の末に、生鮮野菜市場情報の研究で名古屋の卸売市場を訪ねたときに、卸売市場で扱う情報はあくまで会計処理の業務データなので、「使用後は無価値」と聴いてびっくりしたことがあります。自由米の価格相場の情報についても、同じような反応がありました。

最近、何かと AI という見出しが多くなりましたが、大規模データを瞬時に解析する能力は想像を超える勢いです。データは指数的に蓄積されますが、そのデータの有効活用はとても難しく感じてきましたが、大型計算機のバッチジョブを経験した世代には、昨今のデータ学習の話題は夢のような話です。ハード的には数万円のノートパソコンでも可能な時代なのです。

一方で、プログラミングをできる学生は少なくなったように感じられます。スマホですべて済ませる……。といった現状もあるようです。

フィールドサーバで蓄積された気象データの活用のために、プログラミング言語、Python の使い方をまとめてみました。長らくオブジェクト指向言語なるものが理解できずにいましたが、使ってみると、少し理解できたような気になります。Python のインストールから説明し、実際に BLITECAST というバレイシヨ疫病発生危険指数の計算プログラムの作成結果を公開しました。使い勝手はまだまだですが、ご希望の方は研究会宛てにご連絡ください。

農業開発研究会は、ネパール・サクー(サンカラプール市)において農業技術支援を実施しています。2018 年 10 月、バレイシヨ疫病予察などに必要な農業気象情報の収集を目的としてフィールドサーバ NEXAG をサクーに設置しました。2020 年 1 月にはファームウェアを現地の通信状況に対応させ、より高い精度をもつ相対湿度センサーに交換して、圃場レベルの気象情報利用法の開発を続けています。



### 写真説明（上から）

サクーの種イモ  
渡航前のフィールドサーバの  
梱包作業  
新しい NEXAG  
サクーにおける山口会員による設置  
作業の様子

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## 訃報

農業開発研究会の活動に大きな貢献をされてきた、私どもの友人、アニタ・マナンドールさん、飯田昌博さんが、ご逝去されました。謹んで哀悼の意を表します。

理事長 長南史男



Dr. Anita Manandhar

2022 年 5 月 15 日逝去

ネパール、トリブファン大学卒業後、ネパールの農村における教育・福祉分野で NPO 活動に従事した。和歌山県新宮市での国際交流がきっかけとなり、北海道大学農学研究院に留学、博士課程修了。ネパールの農業発展に関する国際学術研究に寄与し、堪能な語学力と、組織に依存しない多彩な活動で、内外の NPO 活動を結び、多くの人々に愛された。農業開発研究会のネパールにおける NPO 活動に中心的な役割を果たした。



飯田昌博氏

2022 年 5 月 29 日逝去

帯広市幸福町で畑作農家 3 代目として生まれる。帯広畜産大学大学院修了後、帯広市でブロッコリ、大根などの新たな野菜の作物を導入し産地化に取り組んだ。「ネパール・サクー村における農薬の適正な使用技術指導」で総合的なバレイショ疫病対策を現地で指導、サクー村農家の日本での研修においては北海道の有機農家との交流に助力した。ネパールにおけるバレイショ疫病予測に必須のフィールドサーバの実用化に貢献した。また有機農業を推進する北海道オーガニック推進協会の理事長を務めた。

## サクーだより

以下、昨年 2021 年 7 月 9 日付けアニタさんからの 2019 年以降 2022 年夏までのカトマンズにおける Covid19 の状況報告を以下に転載させていただきます。第一波でアニタさん自身がかり患した際の経験、第2波のカトマンズでのロックダウンの様子など、を伝えています。2015 年のカトマンズ大地震の際にも実感しましたが、ネパールの人々の忍耐強さ、貧困者へのボランティア活動、災害時に「ムラに帰る」という選択肢がある、などなど、何かにつけ組織的に動くことに慣れている日本とは違いますね。

### Experiences with COVID-19

Anita Manandhar

#### Background

The year 2019 created a pandemic wave from the dangerous Corona virus named as Covid-19. In almost a year and half, millions of people from around the world got infected and hundreds of thousand lost their lives. Many views and hypothesis were heard in various international media. Some try to prove that it arose in the laboratory of Wuhan China that it leaked accidentally. Some say the virus first observed from the bats or animals. Different people produce different things but the only reality is that the virus got spread very rapidly from one infected person to many persons in a fraction of time. Quarantine and isolation words have not been much used earlier but with this virus they became very common words after the outburst of the disease. People were advised to put mask on all the time and stay away 1-2 meters from another person so as to prevent infecting to or from others as the virus transmit from the saliva particles not visible by naked eye, coming out from infected person's mouth/nose in tiny particles. People got scared to go out or in front of people for fear of infection. It is natural for people to be scared of getting infected from infected persons who don't show any symptom.

People from different infection level have different experience; some say the experience is so terrible that they cannot even breathe and should take it very seriously but some other said they did not felt so terrible. In my own case, my test showed positive among 7 in the house, though I have no symptoms with the test result of 34 PCR (polymerase chain reaction) result. The lower the result the infectious and more than 38 was considered negative. I wonder how I got infected because I had not been near any persons with infection but then I remember accompanying my cousin sister to hospital for her minor operation requiring to stay overnight during early October 2020. As mentioned earlier, one symptomatic or asymptomatic person should stay totally separate from all others in the house and so be it for me too. Actually it was a shocking experience as I had stay away from all the family members to be confined in the room and use separate toilet and other things, something like an untouchable. Luckily we have a separate empty house which I used for my isolation. People might have difficulty in just confined in one small room during the 2 week period of isolation. In the beginning of Covid-19 pandemic, the infection and deaths were very low and so Nepalese thought that they have immunity power due to the spices they used to take in their food like turmeric, ginger. However, Government announced lockdown from the mid Mar 2020 so as to control the spreading of virus and lockdown continued for more than 9 months with some breaks in between. When the country imposed lockdown, all the offices, shops were closed except few hours of service for the daily necessary things like grocery shops but medical shops could be open for most hours, however people were not allowed to walk except few hours in the morning. The lockdown affected all the persons but mostly to those who have to earn by working as daily wage laborer. At that time of need, many volunteer organizations and individuals came out to raise fund and distribute food to such needy people living in Kathmandu. Volunteers also came out in the districts to provide food and shelter to those who return from cities as some had to walk all the way as they cannot find vehicles on the road. People got together to manage quarantine and isolation centers. People have to go back to their own villages, houses because all the business and offices in the cities were closed due to lockdown.

The lockdown has some positive parts also.

- The family had time together
- All the family members are involved in meal preparation together or in turns
- Try out various recipes
- Had time together for doing exercise
- Time for gardening and many people started roof top gardening
- More people participate in meetings or seminar from home organized through virtual media
- People got habituated to wear mask and that also helped to avoid pollution also

- Less people were seen in the hospitals as hospitals run only in the emergency
- More people came out to support the really needy ones
- Working from home system practiced

However, some negative aspects in family and community level seen:

- Seems the world is in the standstill state
- The world suddenly become so limited within the house or room
- No work and no income, difficult for daily wage groups
- People got scared of other people, no visitors allowed inside the house
- Escalating use of sanitizers or soap and water
- People got annoyed even with their own family members

### The outbreak of second wave:

Nepalese did not take seriously on the news of Covid-19 second wave in Europe but when it hit India, only then people got worried. At the same time lockdown has been loosened and gradually people started coming out towards normal life and performed some festivals, wedding parties where gathering of large number of people occur. By April-May 2021, the second wave of Covid-19 entered Nepal. Mid May or May 19 showed the highest death of 246 over the period of 24 hours, causing much concern. Due to the increasing number of death rate, government called another lockdown from the end of April 2021 till the end of Jun.

The second wave actually proved to be dangerous as the infection rate got higher along with the death rate. Unlike in the first wave, there were cases of whole family members infected and many persons of lower age group also expired. This time many well-known persons in the field of art, culture as well as politics met untimely death. One from a Shakya family died unexpectedly that he had been a good artist in making big sized statues not only in the country but also outside the country like Bhutan, Taiwan.

At the same period one of my cousin brothers also met the same state that he expired after 10 days of showing symptoms, hospitalized even after helped with ventilator for a week.

The saddest thing with this Covid-19 is not only losing a member of the family but also one cannot even participate in the funeral. The family members even cannot touch and do the formal ritual if the person was Covid-19 positive. The body will be taken by the army and cremate in the electric furnace. . Similarly, none of the relatives can pay visit the house for any of the rituals. That part is so hard for people to bear.

### Vaccine to protect people:

Vaccine has been developed in different countries so as to fight the virus. One should get two doses of the vaccine within the period of 1 or 3 months depending on the vaccine developers. Nepal got the first lot of vaccine COVISHIELD from India and the first dose were given to the frontline workers such as those work in the hospitals, traffic, banks and waste management starting from the month of February 2021. The remaining vaccine has been provided to those elderly people from age 65 and above but they could receive only the first dose and waiting for second dose to come from India.

While waiting for the second dose of vaccine from India, Nepal government received vaccine from China VEROCELL and that was good only for the age group 18 to 59. This group was able to receive both the doses within a month and felt relieved. The vaccine even the first dose made people feels somewhat secured to fight the virus.

I was not able to get vaccine in the first or second lot since I am not a frontline worker or from age group 60-64. With the vaccine obtained from China in the later phase I am also lucky to receive the VEROCELL vaccine, first dose on 9 Jun 2021 and second dose on 6 July 2021 and I feel secure though the effectiveness of Chinese vaccine is only 50 percent. It is something better than nothing. However, with vaccine or not, people are advised to use mask, keep distance of 2-3 meters from one another and use sanitizer or washing hands frequently to keep away from the virus for the time being.

#### 編集後記

昨年4月3日、折登理事のZOOMコーディネートでサクーとの交流を実施しました。サクーからの参加者はスリエさんとスンダールさん、カトマンズからアニタさん、カプラさん(通訳)の4人で、彼らはスマホで対応しました。会の活動にZoomなどを活用することを考えています。今後とも、会員の皆様には引き続き、気長に、知識提供とボランティア活動に参加いただきますようお願いいたします。(F.O.)