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LEMBAGA PENDUDUK DAN PEMBANGUNAN KELUARGA NEGARA

Future Scenarios for Thai Families in 2040

Lego, Sewage, Naïve algorithm, and Deep learning

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 **Grand Challenges
Thailand**
National Research
Council of Thailand

**FUTURE THAILAND
2040**

Rural Development

Economy,
entrepreneurship,
and industry

World economy and
Thailand

Culture, language, and
Thai identity

Urbanization

**Population and
family**

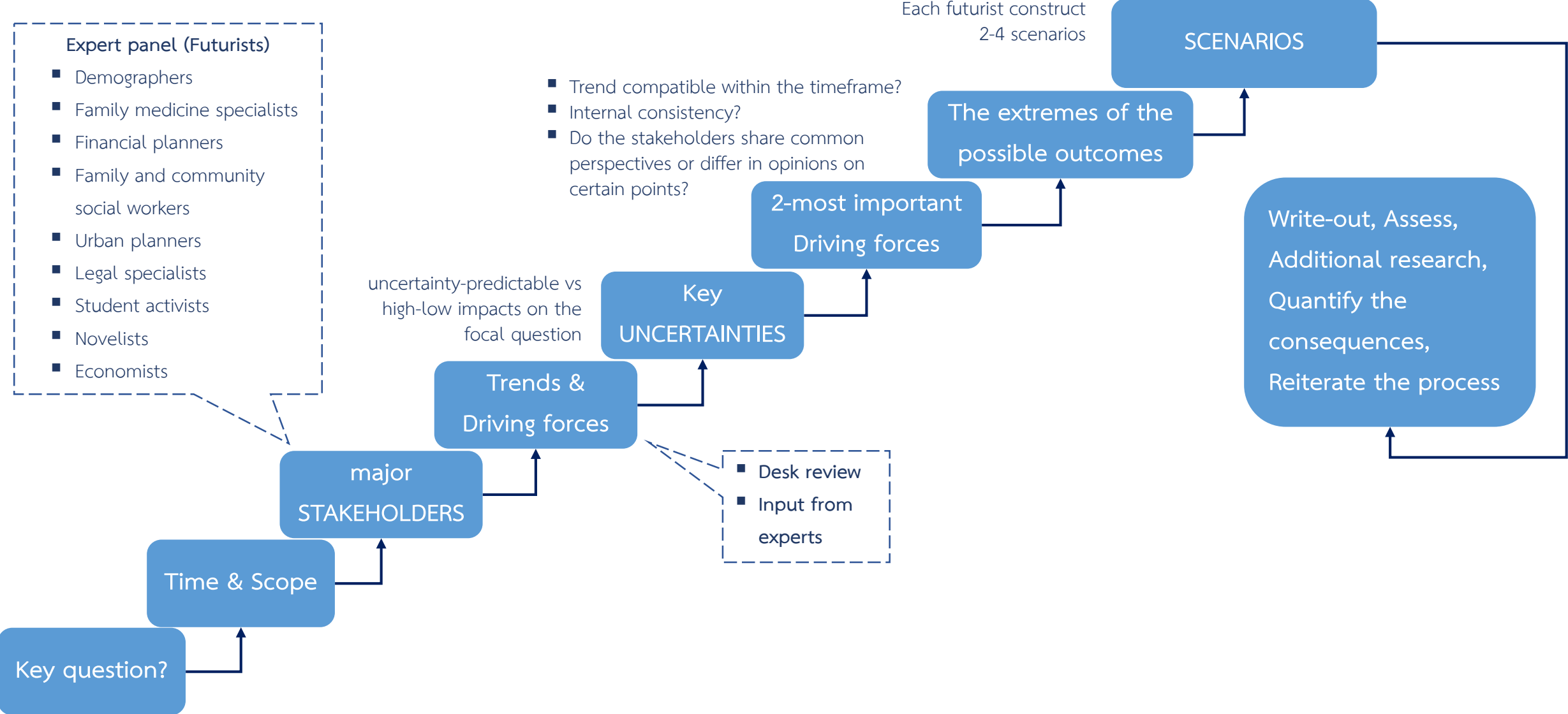
Education

Infrastructure,
environment, and
energy

Politics

National security

Future Scenario Building and Analysis



Horizontal Scanning

Demographic shift: fewer births and longer life expectancy

- Household types projection 2021-2040
- Types of living arrangements
- Vulnerable living arrangements

Inequality, decentralization and their impacts on the Thai families

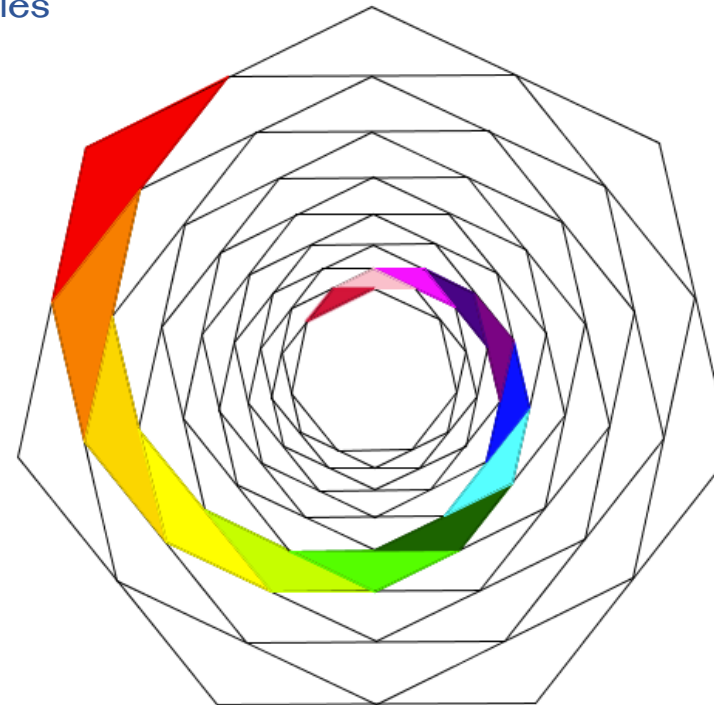
- Relative poverty vs Absolute poverty
- Household debt
- Decentralization and uneven economic development
- Grassroot economic development

Today's family relationships and future trends

- Staying single and childless couples as the new trends
- Living Apart but Together (LAT)
- Family ties in different living arrangements
- Growing individualism
- Same-sex couple

Pandemic and climate crises

- Natural crises, livelihood, migration, and their impacts on families
- Future crises
- COVID-19 and its impacts on family members



Economic development and changing the domestic roles of women

- Female education and participation in the labour market
- Women's changing roles in the household
- Economic pressures on family formation
- Reproductive technologies and innovations

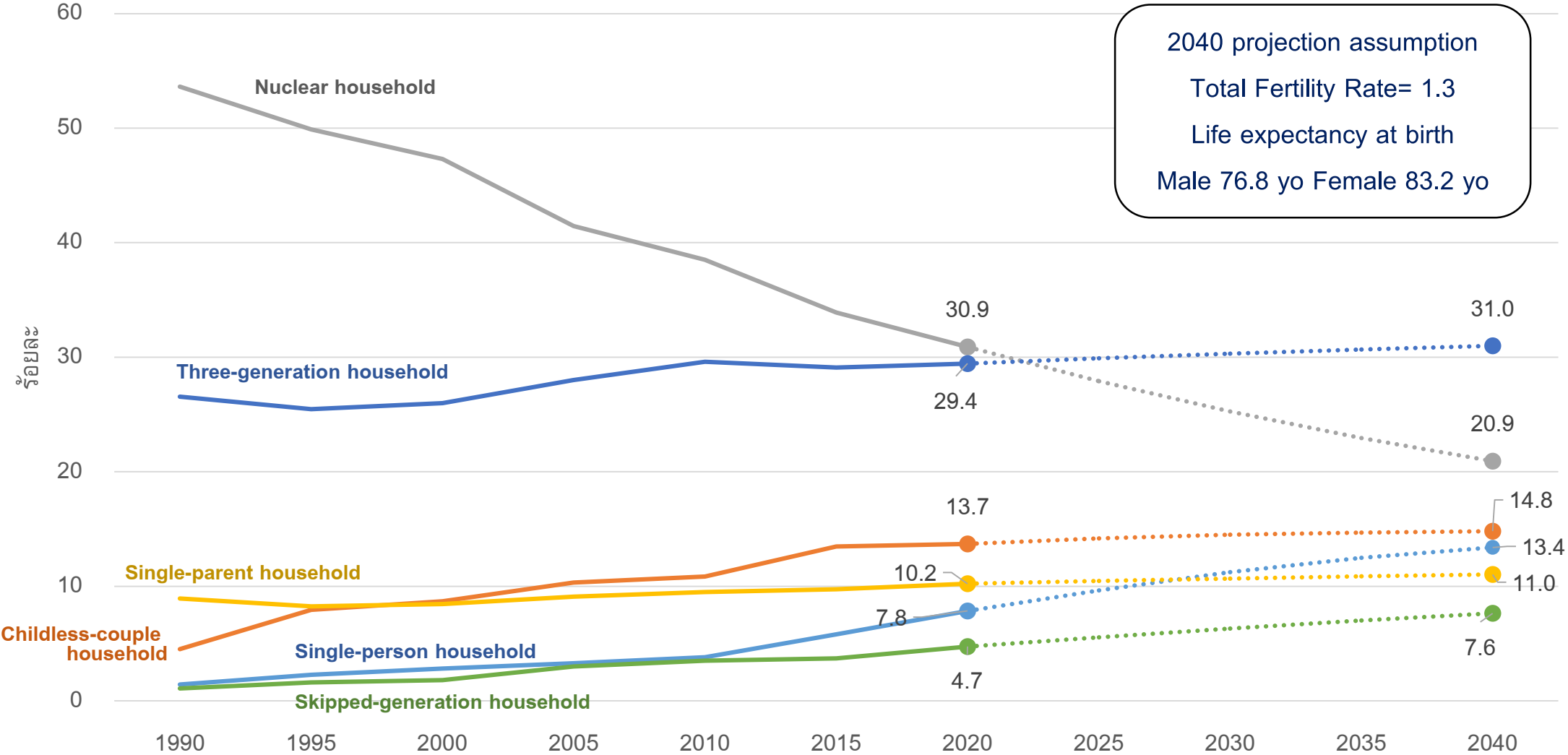
Technological trends and their impacts on families 2020 – 2040

- AI/ IoTs/ Big data/ Cloud computing/
- Brain-interface, Customer-facing technology
- Robot, Autonomous car, Smart home, bionic and prosthetic technologies
- Technological divide

Multiple identities of Thai societies and their impacts on the family

- Religion and beliefs
- Migrant labor
- LGBTQ+

Figure 1 **Projected proportion of Thai households 2020-2040**



Data source for projection: Labor Force Survey, Q 3, National Statistical Office of Thailand 1990, 1995, 2000, 2005, 2010, 2015, 2019

Projection from: The Future of Thai Families 2040, Institute for Population and Social Research, Mahidol University, Thailand

Decentralization & Grassroot economy development

Local Empowerment:

- **Resource Allocation:** Decentralization allows local authorities to allocate resources based on the specific needs and priorities of their communities.
- **Tailored Policies:** Local governments can implement policies that are better suited to the unique economic and social characteristics of their areas.

Economic Growth:

- **Grassroots Initiatives:** Empowering local administrative units fosters grassroots initiatives and entrepreneurship, contributing to economic growth from the bottom up.
- **Job Creation:** Localized decision-making can lead to projects and programs that directly address local employment needs.

Community Engagement:

- **Participatory Decision-Making:** Decentralization encourages community involvement in decision-making processes, ensuring that policies align with the actual needs of the population.
- **Social Capital:** Strengthening social ties within communities enhances social capital, promoting collective well-being.

Reduced Inequality:

- **Wealth Distribution:** By reducing dependency on centralized resources, decentralization helps distribute wealth more equitably across various regions.
- **Access to Opportunities:** Local empowerment ensures that opportunities for economic development are accessible to a broader range of communities, minimizing regional disparities.

Family Well-Being:

- **Tailored Social Services:** Local authorities can tailor social services, including healthcare and education, to the specific needs of families in their areas.
- **Community Support:** Grassroots initiatives and community engagement contribute to a supportive environment that enhances the overall well-being of families.

The TWO Major Driver Forces

Family's adaptability to future crises

Resilient Mental Health:

- **Crisis Coping Mechanisms:** Families with adaptive strategies develop resilient mental health to cope with the stress and uncertainties of crises.
- **Emotional Wellbeing:** Enhanced adaptability contributes to better emotional wellbeing, promoting positive mental health outcomes for family members.

Resource Management:

- **Efficient Resource Allocation:** Adaptive families excel in managing resources during crises, ensuring the effective distribution of essential needs.
- **Financial Stability:** Improved adaptability supports financial stability, minimizing economic disruptions and enhancing overall family wellbeing.

Health and Safety Practices:

- **Proactive Health Measures:** Families with adaptive practices engage in proactive health measures, reducing the impact of health-related crises.
- **Preventive Healthcare:** Prioritizing preventive healthcare measures contributes to the overall health and wellbeing of family members.

Effective Communication:

- **Strong Family Bonds:** Adaptive families foster strong communication bonds, enabling effective coordination and support during crises.
- **Information Sharing:** Open communication channels facilitate the sharing of critical information, aiding collective decision-making.

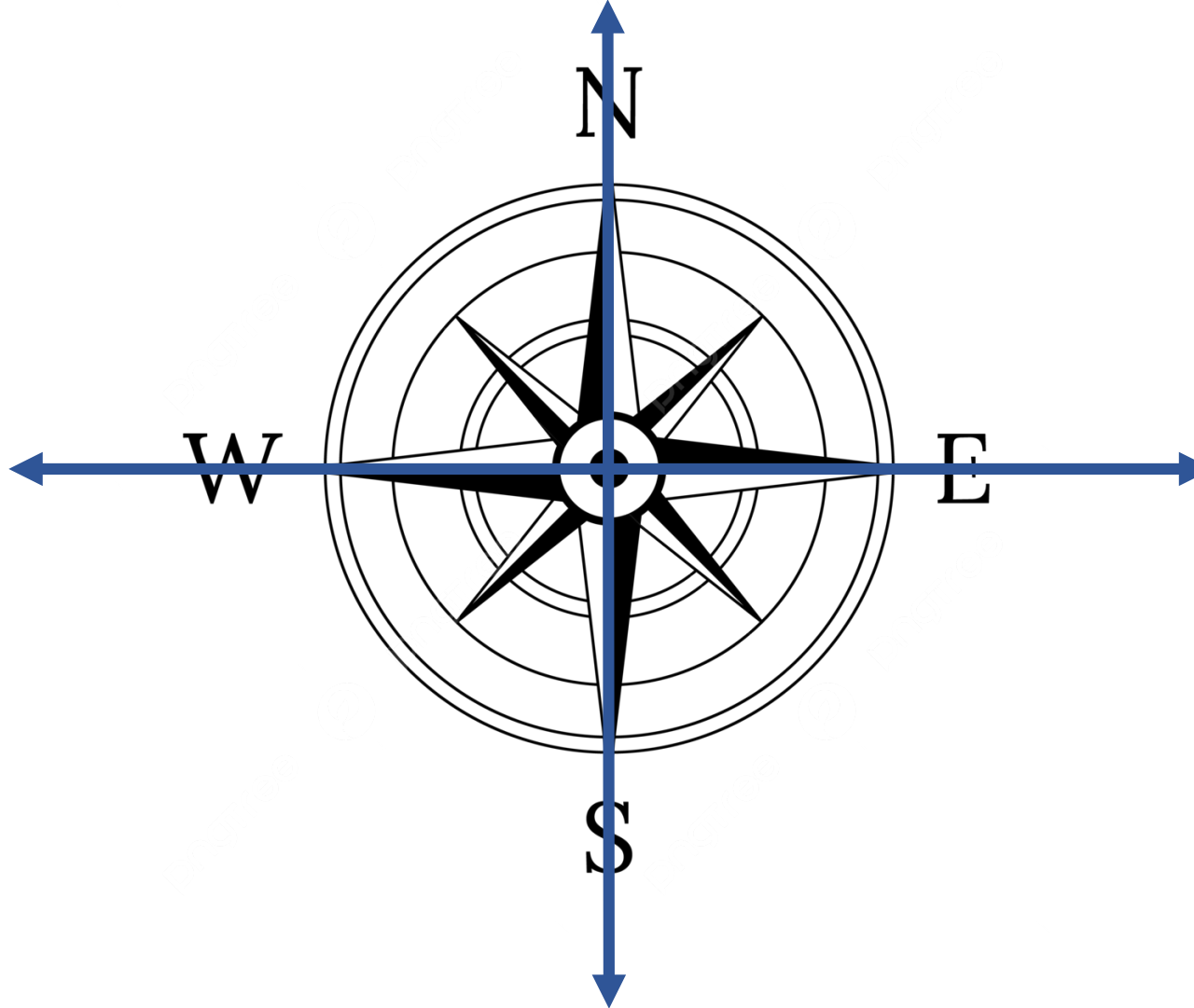
Community Integration:

- **Community Support:** Adaptability strengthens ties with the community, providing a support network during challenging times.
- **Collaborative Solutions:** Engaging with the community allows families to collaborate on solutions, enhancing overall resilience.

Future Compass

Successful decentralization and
grass root economy development

Families **fail** to
cope with
future disasters



Families **can**
cope with
future disasters

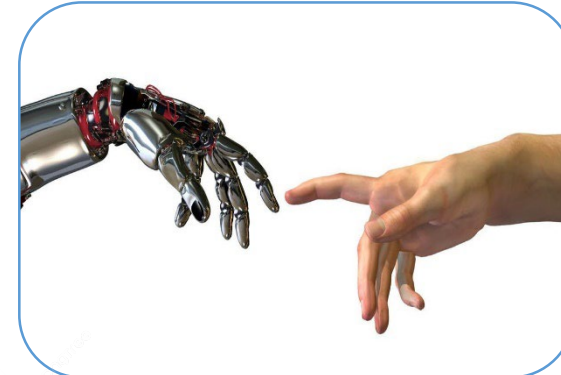
Unsuccessful decentralization and
grass root economy development

Figure 2 **The scenarios for Thai Families in 2040**

Successful decentralization and
grass root economy development



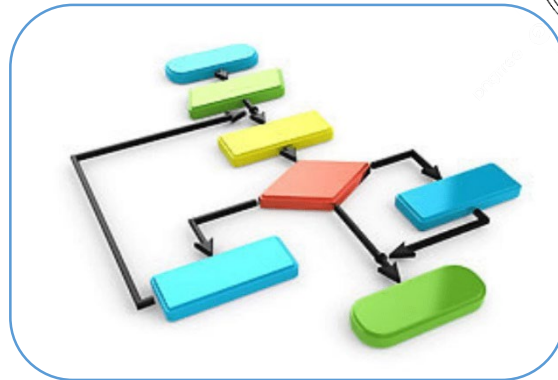
Lego on an application platform



Deep Learning, Deep Caring

Families **fail** to
cope with
future disasters

Families **can**
cope with
future disasters



Naïve algorithm



Sandbox by a sewage

Unsuccessful decentralization and
grass root economy development

Successful decentralization and grass root economy development

2040



Family on the virtual space

- Online platforms become crucial for earning, and local assets are more efficiently utilized
- Younger generation stays close to home, thus slowdown internal migration.
- Formal, institution-based education transitions to informal online education

Lego 197 application platform

- Smart urban, semi-smart rural
- loST for SO (Internet of something for someone)
- Family members still struggle to adapt to impending disasters

7G, Internet

Super hi-speed

- Voice command
- Brain-interface
- Robot & Bionic technology
- Underutilized technology

Networked individualism

- Wearable devices
- Deprioritized diploma
- Start*up and new ways to earn money online

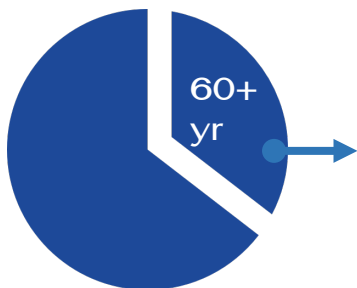
Strong family ties, highly vulnerable to crisis

- Family never learns the lessons (COVID-19), relaxes the guard, suffers severe hardship whenever the crisis strikes
- Fertility rates see a modest improvement

Super-aged society, super-dependency

- 1/3 aged 60+
- Highly dependent on government's assistances and welfare
- Elderly LGBT family
- Wider generational gap

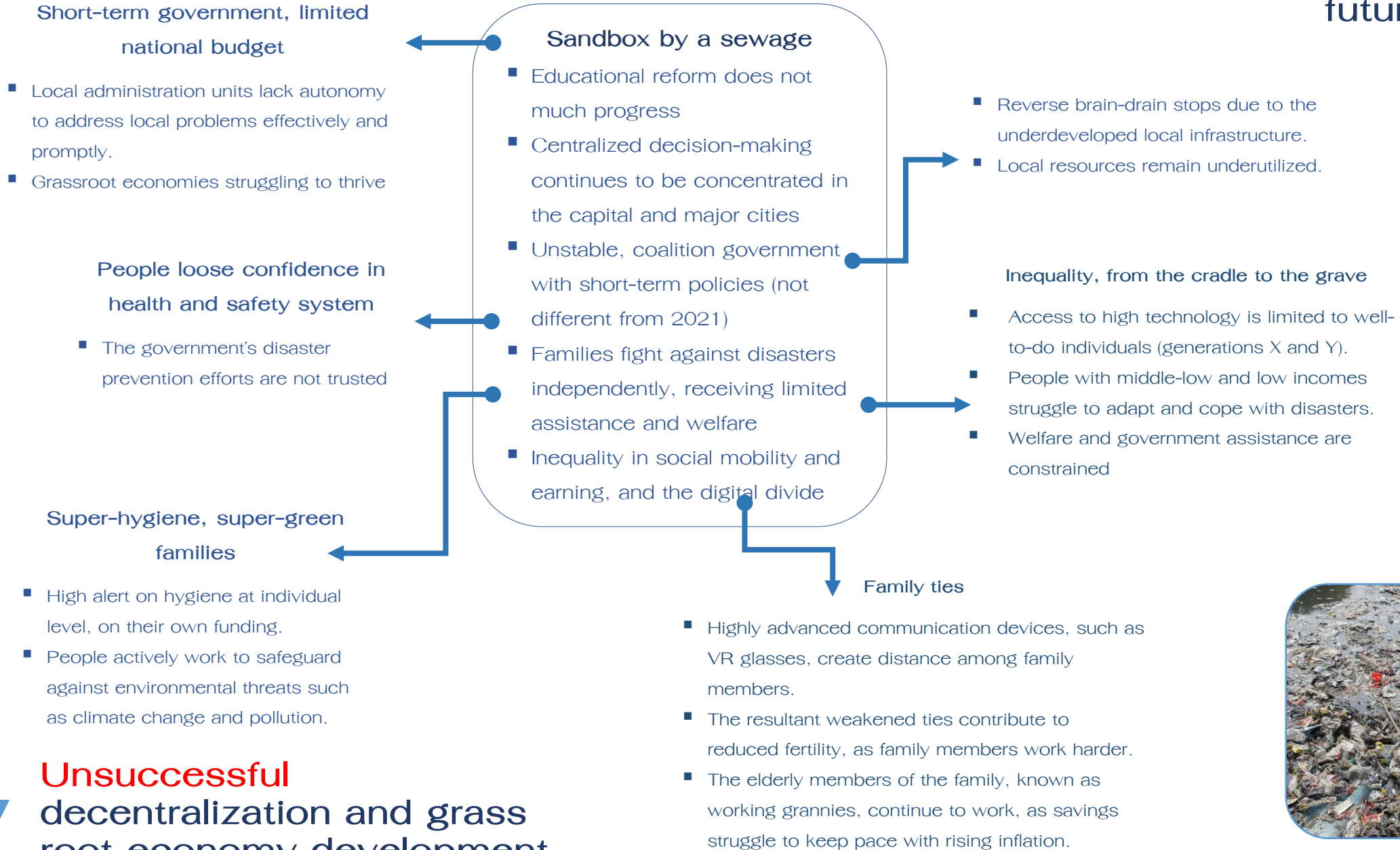
- One-person household +13%
- Older-person living alone 15%
- Urban > rural



Surge of products & services for older persons

Families **fail** to cope with future disasters

Families **can** cope with future disasters



Unsuccessful
decentralization and grass root economy development

2040



Sandbox by a sewage

Families **fail** to cope with future disasters

- Expansion of family with vulnerable living arrangements, especially older-person living alone, skipped-generation, and childless couple



One-person household of working age pop. rises from 8% (2563) to 13.4% (2583)



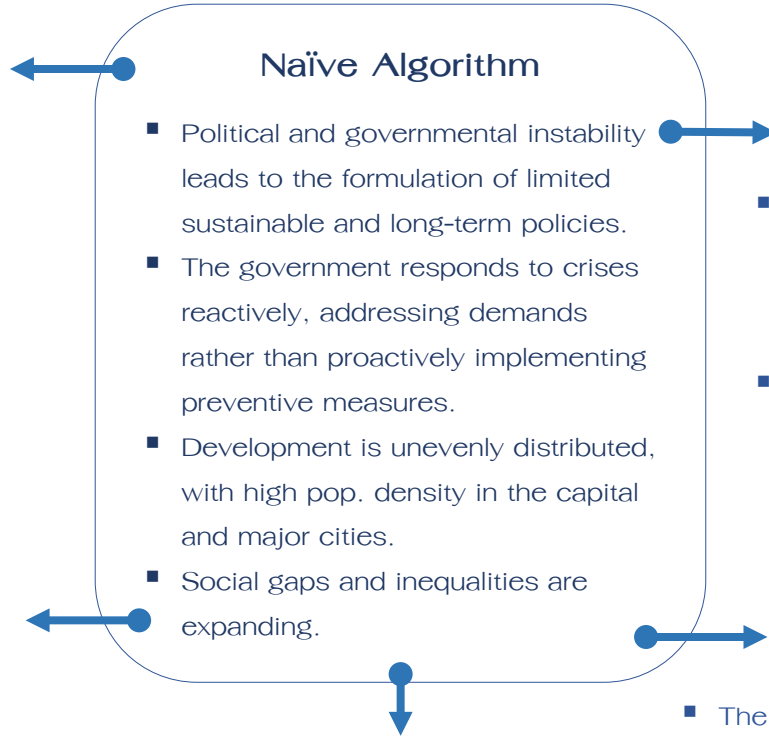
Older-person living alone 14.7% (2583)



Naïve Algorithm

- ### Pet humanization
- Pets are becoming closer to families and are increasingly treated as family members, particularly in the case of older individuals living alone.
 - They serve as crucial sources of mental health support.
 - Ensuring the well-being and security of pets will be prioritized.

- ### Rural family
- Smart farming never happens
 - Aged farmers are left to traditional, low-technology, farming, and to take care of grand children whose parents live in the cities
 - Vulnerable skipped-generation household rising
 - Nonetheless, social capital in rural areas continues to serve as a valuable resource..



- ### Naïve Algorithm
- Political and governmental instability leads to the formulation of limited sustainable and long-term policies.
 - The government responds to crises reactively, addressing demands rather than proactively implementing preventive measures.
 - Development is unevenly distributed, with high pop. density in the capital and major cities.
 - Social gaps and inequalities are expanding.

- ### Resilience from crisis
- Developing resilience takes longer as families do not engage in preventive behaviors, and the government lacks efficiency.
 - The country and cities are experiencing more frequent and prolonged shutdowns.

- ### Fertility
- The escalating expenses associated with raising children, covering essential sustenance, education, and in vitro maturation (IVM), have become a significant concern.
 - The total fertility rate has reached a critically low level.

- ### Children
- Distinct difference between children from well-to-do background and from low-income family, e.g. academic performance, career opportunity, and live survival skills
 - Digital divide between urban and rural children

Unsuccessful decentralization and grassroots economy development



Successful decentralization and grass root economy development

Multi-identities society

- Increase in replacement migration, particularly with talented individuals, into Thailand to offset the decline in the total population (since 2021).
- Social integration has seen improvement.
- There is a greater respect for global citizenship.

Family and parenting

- Global household, global citizenship
- Improved family tie as family members stay close to each other, less internal migration
- LGBTQ+ family are more prevalent and entitled to welfare

Virtual platform for work-life balance

- Work-Life Integration
- Flexible work-hour and workplace
- Work from home as a norm to stay away from PM2.5 and pollution
- Smart home environment facilitated by the Internet of Things (IoT)

Deep Learning, Deep Caring

- Enhanced quality family ecology
- Freedom of living choice, reduced inequality, improved income distribution, and dignity for individuals at all levels
- Efficient transportation and enhanced digital connectivity
- Modernization of rural areas with necessary infrastructure, while preserving their identities and rich social capital

Families are high alert on crises

- Work harder (2nd or 3rd jobs) to earn more income.
- Up-skill and re-skill on continual basis.
- Low fertility persists as young couples remain uncertain about future disasters and the habitability of society.

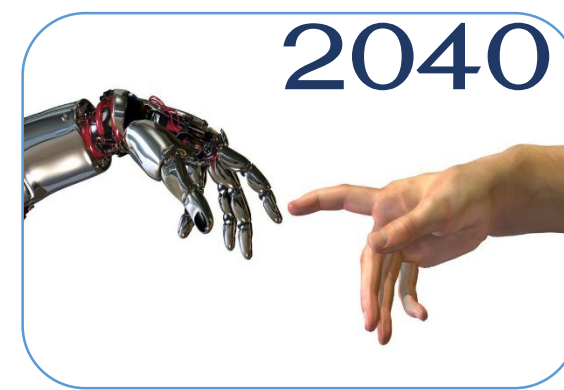
- The acceptance and practice of living wills and euthanasia have increased, often justified by considerations related to savings.

- Increased prevalence of home-schooling with the aid of online curricula
- Decreased popularity of international schools
- Rise of online classrooms
- Greater availability and affordability of autonomous cars

Stagnation or reduction in urban areas and the modernization of rural areas

Young population

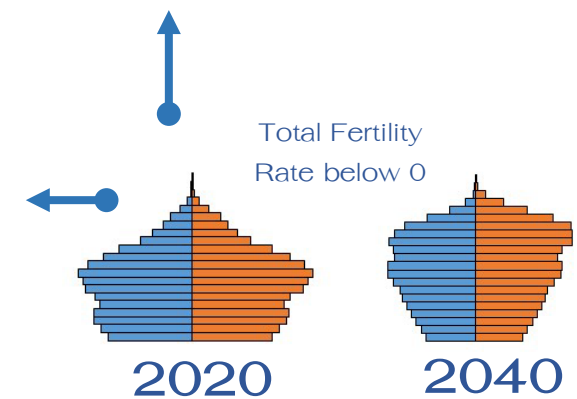
- fewer off-line friends,
- enjoy relationship with avatar and AI,
- More comfortable to stay alone and keep privacy



2040

Deep Learning, Deep Caring

Older-person are healthy and keep on working to generate income



Families can cope with future disasters



Recommendations

1. Government measures and policies, spanning all sectors, should underscore the growing diversity within society. It is imperative that these policies embrace family-friendly approaches, encouraging family members to reside together and provide mutual support. Incentives should be established to discourage the dispersion of family units. This can be achieved by promoting quality education across all localities and dispersing economic and industrial development to mitigate population concentration in a few megacities. This strategic shift aims to curb the migration of the working-age population from their home provinces and regions, reducing the need to send children to larger urban centers for higher education.
2. The significance of technologies aiding older individuals, including bionic and prosthetic technologies, is poised to increase in the future, particularly as the country transitions into a super-aged society with approximately one-third of the population being elderly. Given that many scenarios predict the persistence of economic inequality in Thailand, it is anticipated that these technologies will primarily be accessible to affluent older individuals. To address this disparity, establishing a fund aimed at providing underprivileged older persons with access to these technologies becomes crucial. This initiative aims to empower them to live independently and enjoy the benefits of technological assistance.
3. It is imperative for all smart city projects to effectively incorporate designs that foster a multi-generation-friendly environment, ensuring inclusivity and not leaving any vulnerable groups, such as children and older persons, marginalized.
4. Government decentralization plays a pivotal role in empowering local administrative units and catalyzing grassroots economic development, contributing to improved wealth distribution and a reduction in inequality. To enhance grassroots economies in localities and promote a reverse brain drain, it is crucial to establish financial assistance, infrastructure support, and mechanisms to enable young, capable individuals to work effectively in their local contexts. This approach aims to maximize the utilization of hometown resources and foster sustainable economic growth.
5. Family members need education and guidance to be alert in dealing with the anticipated future disasters, which are expected to arise in diverse forms and occur more frequently. Safeguarding against diseases, pandemics, and climate-related disasters may incur significant costs, but it is essential for sustaining a semblance of normalcy in life. This information should be disseminated through various platforms, and preparations should be made, including the availability of necessary instruments.



Recommendations

1. Diverse Society and Family-Friendly Policies:

1. Government measures should prioritize diversity within society.
2. Encourage family members to reside together and provide mutual support.
3. Incentivize policies discouraging the dispersion of family units.
4. Promote quality education across all localities.
5. Disperse economic and industrial development to mitigate population concentration in megacities.

2. Technological Aid for Older Individuals:

1. Emphasize the increasing importance of technologies for the elderly.
2. Bionic and prosthetic technologies will play a key role.
3. Anticipate accessibility issues, particularly for less affluent older individuals.
4. Establish a fund to provide underprivileged older persons with technological assistance.
5. Empower them to live independently and benefit from technological advancements.

3. Inclusive Smart City Projects:

1. Ensure smart city projects incorporate designs for a multi-generation-friendly environment.
2. Foster inclusivity, preventing marginalization of vulnerable groups.
3. Prioritize the needs of children and older persons in smart city planning.

4. Empowering Local Economies through Decentralization:

1. Highlight the pivotal role of government decentralization.
2. Empower local administrative units for grassroots economic development.
3. Contribute to improved wealth distribution and reduced inequality.
4. Establish financial assistance, infrastructure support, and mechanisms for local employment.
5. Promote a reverse brain drain, utilizing hometown resources for sustainable growth.

5. Preparedness for Future Disasters:

1. Emphasize the need for education and guidance for family members.
2. Address anticipated future disasters occurring more frequently.
3. Safeguard against diseases, pandemics, and climate-related disasters.
4. Acknowledge the potential costs involved in disaster preparedness.
5. Disseminate information through various platforms and ensure necessary instruments are available.



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